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Water Quality Instructional Resources Information System (IRIS): A Compilation of Abstracts to Water Quality and Water Resources Materials. Supplement V (1981)

Ohio State Univ., Columbus

Prepared for

National Training and Operational
Technology Center, Cincinnati, OH

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U.S. Department of Commerce
National Technical Information Service
NTIS

EPA Information Dissemination Project
1200 Chambers Road - Third Floor
Columbus, Ohio 43212

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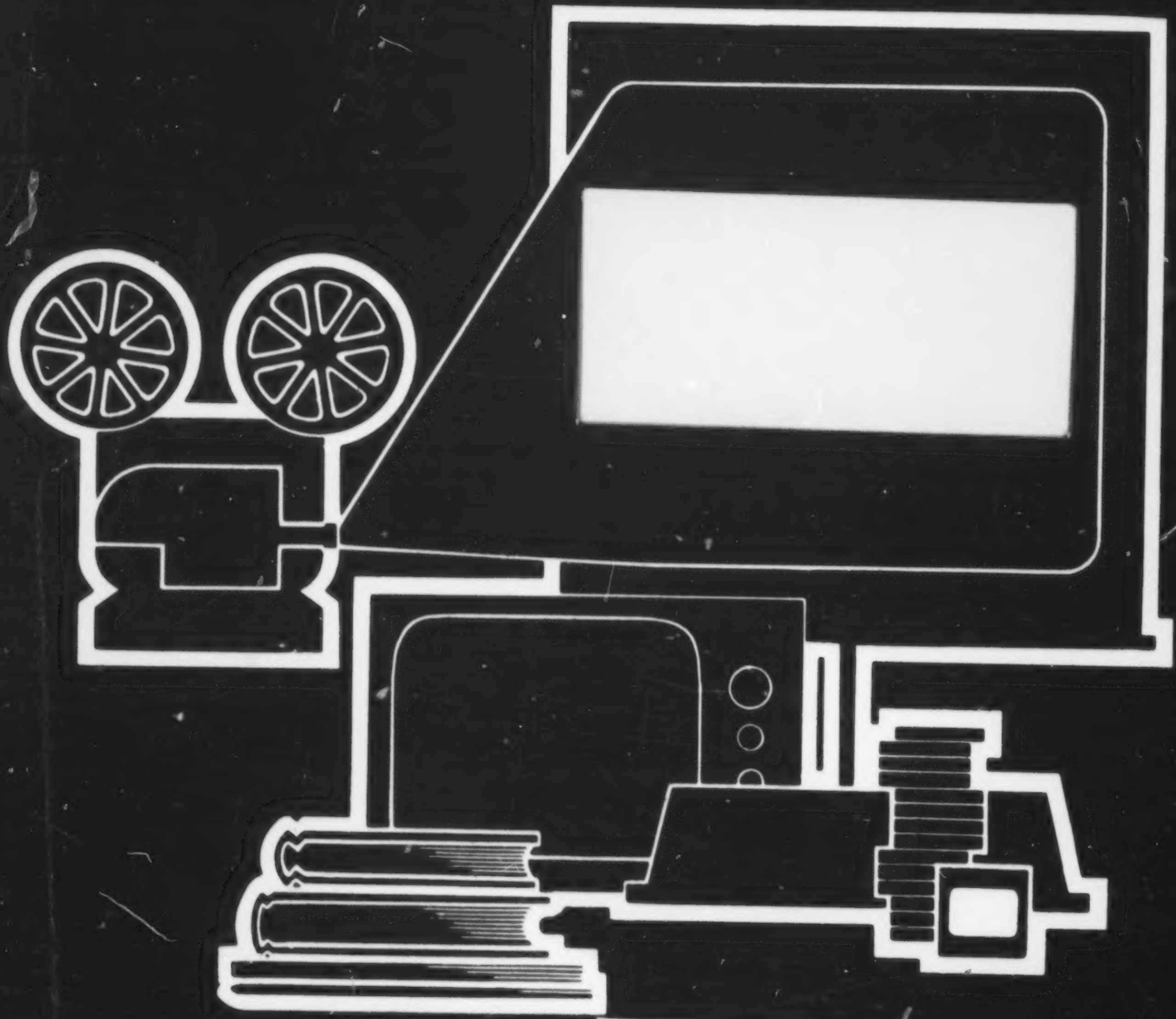
Water

Water Quality Instructional Resources Information System



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Presented are abstracts and indexes to selected print and non-print materials related to wastewater treatment, water quality, and water resources education and instruction. Entries are included from all levels of governmental sources, private concerns and educational institutions. Each entry includes: title, author, cross references, descriptors, and availability. Also included are procedures illustrating how instructors and program developers in the water quality control field can locate instructional materials to meet their needs. (BT)

17. KEY WORDS AND DOCUMENT ANALYSIS

a. DESCRIPTORS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group
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A Compilation of Abstracts to Water Quality and Water Resources Materials

Supplement V (1981)
March, 1981

National Training and Operational Technology Center
Office of Water Program Operations
U.S. Environmental Protection Agency
Cincinnati, Ohio 45268

March, 1981

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Preface

This publication contains abstracts and indexes to selected materials related to wastewater treatment and water quality education and instruction. In addition, some materials related to pesticides, hazardous wastes, and public participation are included. Also included are procedures to illustrate how instructors and curriculum developers in the water quality control field can locate instructional materials to meet very general or highly specific requirements in their programs.

Supplements to this publication will be issued periodically.

For further information about these materials contact:

EPA Information Dissemination Project
1200 Chambers Road
Columbus, Ohio 43212

Telephone: (614) 422-6717

I. General Information about Materials in IRIS.

A. What types of materials are included in IRIS?

The EPA Information Dissemination Project (water) acquires, reviews, indexes, and announces both print (books, modules, units, etc.) and non-print (films, slides, video tapes, etc.) materials related to water quality and water resources education and instruction.

Materials selected must be available from some source for announcement. When materials are not readily available we attempt to make the materials available through some national information service for easier acquisition. In a few cases the EPA Information Dissemination Project is the source of the materials.

B. How are materials entered into IRIS?

We request that people assist us in locating materials for the system. If you have materials you believe to be useful to others, please send two copies if possible to the:

EPA Information Dissemination Project
1200 Chambers Road
Columbus, Ohio 43212

Materials are reviewed by the project staff. Availability of the material is checked, and the materials are abstracted and indexed. The abstract describes the contents of the material. The index terms (descriptors) are concepts or terms used to describe the contents and the form of the document. (See the Subject Index for a listing of those that have been used.) The index terms are useful for locating materials manually, such as with this compilation, and also by computer.

When items are processed they are entered on the IRIS (water) computer tape. This tape is maintained by the EPA Information Dissemination Project at The Ohio State University and is used for producing tapes for other information systems, publications, and for computer searches conducted at The Ohio State University.

C. How can a user locate materials in IRIS?

1. All materials placed in IRIS (water) Collection.

Materials entered into the IRIS (water) collection can be located in two ways: (1) by manual search of this compilation and similar ones to follow and (2) by computer.

The first compilation contained resumes of selected materials processed for the previous IRIS (water) collection and resumes of selected materials of items added to the IRIS (water) collection. A limited number of copies of the compilation in paper copy and microfiche are available free of charge as long as the supply lasts from the EPA Information Dissemination Project. After the free copies of the compilations are gone, copies will be available for purchase from the EPA Information Dissemination Project.

Quarterly updates of the compilation are available by subscription on a yearly basis beginning November, 1979. Information regarding an annual subscription to IRIS (water) Quarterly Compilations can be obtained by writing to the EPA Information Dissemination Project. A subscription to the quarterly supplements for 1979-80 is $12.00 (within the U.S.). Price to Canada is $14.00. Prices in other countries is $20.00. Separate quarterly supplements are $4.00 each.

The compilation and the quarterly supplements can be scanned and the subject index can be used for manual searches.

Computer tapes of the IRIS (water) collection can also be searched by both batch and on-line computer searches. The IRIS tapes are available for purchase from the SMEAC Information Reference Center. In addition, the IRIS tapes are available for searching through the Bibliographic Retrieval Services, Inc., (BRS). Any search service that currently subscribes to BRS is able to search the IRIS data base by on-line techniques. Individuals or agencies with computer terminals and telephone connection equipment can subscribe to BRS and do their own searches if they desire. Current plans are to update the IRIS tapes every three months.

Information regarding BRS may be obtained by writing or phoning BRS, Corporation Park, Building 702, Scotia, NY 12302, (518) 374-5011.

Plans are being made to mount IRIS tapes with other on-line vendors. Information regarding this service will be announced in a future EPA IRC Bulletin and in mailings from the EPA Information Dissemination Project.

2. Materials placed in the Educational Resources Information System (ERIC)

A number of the materials processed for the IRIS (water) system are entered into the ERIC system and announced in Resources in Education (RIE). Resources in Education (RIE) is published monthly and is available from:

Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402

The current price is listed in the most recent issue of RIE. Check if a college or university library close to you has a copy. If they do not contact the EPA Information Dissemination for assistance.

Many libraries subscribe to RIE. Materials announced in RIE can be searched manually each month by scanning RIE or by checking the index terms in the back of each issue. Materials announced in RIE can be searched by computer also. ERIC computer tapes may be purchased outright, but most users of the tapes gain access to them through three major database vendors, Lockheed (Dialog), Systems Development Corporation (Orbit), and Bibliographic Retrieval Services. For the addresses of search services in your state that can search these databases, contact the:

EPA Information Dissemination Project
1200 Chambers Rd., Room 310
Columbus, Ohio 43212

Most of the materials announced in RIE are available on microfiche (microfilm) at over 700 sites throughout the United States and the world. Users can view these materials on site at many locations to identify what they believe will be useful to them at no cost. Microfiche copies (or in most cases Xerox copies) can be ordered through the ERIC Document Reproduction Service. The address and order information is in the back of each issue of RIE. Xerox copies of many items related to water quality and resource education and training can also be ordered through the EPA Information Dissemination Project for 3¢ per page + $1.00 per document.

For information about locations of ERIC microfiche sites in your state, contact the EPA Information Dissemination Project.

A number of journal articles processed for the IRIS (water) system are entered into the ERIC system and announced in Current Index to Journals in Education (CIJE).

Current Index to Journals in Education is published monthly and is available from:

ORYX Press
3930 East Camelback Road
Phoenix, Arizona 85018

Many libraries subscribe to CIJE. Materials announced in CIJE can be searched manually each month by scanning CIJE or by checking the index terms in the back of each issue. Materials announced in CIJE can be searched by computer also. Refer to the previous discussion of RIE concerning computer searches.

Materials announced in CIJE can be located in journals at many university libraries.

Many of the articles can be obtained from University Microfilms. Current prices are $6.00 for articles published before January 1976 and $4.00 for articles published after January 1976. For further information write to:

UMI Article Reprint Department
300 North Zeeb Road
Ann Arbor, Michigan 48106

II. How to Use the Compilation

A. Description of Information in Resumes

Each resume is listed by EW number in numerical order in the resume section. Two samples of resumes are provided to explain the data fields in the resumes. Sample resume #1 is a sample resume of an item not entered in ERIC. Sample resume #2 is a sample resume of an item entered into ERIC; a few additional data elements are in these resumes and are explained.

1. Sample resume of materials not entered into ERIC

   a. IRIS NUMBER: EW 005 089
   b. PUBLICATION DATE: AUG 79
   c. TITLE: A HANDBOOK OF KEY FEDERAL REGULATIONS AND CRITERIA FOR MULTIMEDIA ENVIRONMENTAL CONTROL.
   d. PERSONAL AUTHOR: GREENWOOD, D. R.; AND OTHERS
   e. DESCRIPTOR: *ENVIRONMENTAL CONTROL; ENVIRONMENTAL LEGISLATION; *FEDERAL REGULATIONS; *FEDERAL CRITERIA; *MULTIMEDIA ENVIRONMENTAL CONTROLS; OCCUPATIONAL HEALTH; *POLLUTION CONTROL; *REGULATIONS; *STANDARDS; TOXIC SUBSTANCES

   f. DESCRIPTIVE NOTE: 272P.
   g. ABSTRACT: A SUMMARY OF MAJOR FEDERAL ENVIRONMENTAL REGUALTIONS AND RECOMMENDATIONS AND THE LEGISLATIVE ACTS THAT AUTHORIZE THEM IS PRESENTED. QUANTITATIVE CONTROL LIMITS SPECIFIED BY FEDERAL AGENCIES ARE SUMMARIZED AND TABULATED. THE VARIOUS REGULATIONS, STANDARDS, AND CRITERIA ARE COMPARED. A SELECTED BIBLIOGRAPHY ADDRESSING FEDERAL ENVIRONMENTAL CONTROL ACTIVITIES IS INCLUDED.

   h. AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

   a. IRIS NUMBER -- this is the identification number sequentially assigned to materials as they are processed. Gaps in numbers mean that some items have been deleted, are being processed to add new information, or have been delayed in processing for some reason

   b. PUBLICATION DATE -- date material was published according to information on the material.

   c. TITLE

   d. PERSONAL AUTHOR -- person or persons who wrote, compiled, or edited the material. Up to two personal authors can be listed.

   e. DESCRIPTOR -- subject terms which characterize substantive contents and form of the materials. The major terms are preceeded by an asterisk. Terms used to index all resumes in this compilation can be reviewed in the Subject Index.

   f. DESCRIPTIVE NOTE -- various items of information may be contained in this section. For print materials the number of pages is usually listed.

g. ABSTRACT -- some early materials entered into IRIS did not have abstract information. All materials currently being entered into IRIS have an informative abstract that describes the contents of the item.

h. AVAILABILITY -- information in this field indicates where the material can be obtained and the price of the material quoted the last time information was received from the source. Please note: Prices of nearly all materials are subject to changes and may not be accurate at the time a person orders a specific item.

2. Sample resume of material entered into ERIC (Resources in Education)

Item entered into ERIC (Resources in Education) will have a few additional data fields.

IRIS NUMBER: EW002998
a. ERIC NUMBER: ED151236
PUBLICATION DATE: SEP 77
TITLE: CHLORINATION. TRAINING MODULE 2.300.2.77.
INSTITUTION CODE: BBB08399
SPONSORING AGENCY CODE: BBB15379; FGK21436
DESCRIPTOR: *CHEMISTRY; *INSTRUCTIONAL MATERIALS; *POST SECONDARY EDUCATION; SECONDARY EDUCATION; *TEACHING GUIDES; *UNITS OF STUDY; WATER POLLUTION CONTROL; *CHLORINATION; *WASTE WATER TREATMENT; WATER TREATMENT
b. EDRS PRICE: EDRS PRICE MF-$0.83 HC-$3.50 PLUS POSTAGE
DESCRIPTIVE NOTE: 60P. FOR RELATED DOCUMENTS, SEE SE 024 025-046
c. ISSUE: RIEJUL78
ABSTRACT: THIS DOCUMENT IS AN INSTRUCTIONAL MODULE PACKAGE PREPARED IN OBJECTIVE FORM FOR USE BY AN INSTRUCTOR FAMILIAR WITH CHLORINE. THE REASONS FOR CHLORINATION AND SAFE OPERATION AND MAINTENANCE OF GAS CHLORINE, DRY CALCIUM HYPOCHLORITE AND LIQUID SODIUM HYPOCHLORITE CHLORINATION SYSTEMS FOR WATER SUPPLY AND WASTEWATER TREATMENT FACILITIES ARE GIVEN. INCLUDED ARE OBJECTIVES, INSTRUCTOR GUIDES, STUDENT HANDOUTS AND TRANSPARENCY MASTERS. THE MODULE CONSIDERS PURPOSES OF CHLORINATION, PROPERTIES OF CHLORINE, METHODS OF CHLORINATION, SAFETY, MAINTENANCE OF CHLORINATION UNITS AND INTERPRETATION OF TEST RESULTS. (AUTHOR/RH)
d. INSTITUTION NAME: KIRKWOOD COMMUNITY COLL., CEDAR RAPIDS, IOWA.
SPONSORING AGENCY NAME: DEPARTMENT OF LABOR, WASHINGTON, D.C.; IOWA STATE DEPT. OF ENVIRONMENTAL QUALITY, DES MOINES.

a. ERIC NUMBER -- the ED number indicates the document has been processed and entered into Resources in Education. This identification number is the number to use when ordering a document or when requesting information about a document.

b. EDRS PRICE -- if material is available through the ERIC Document Reproduction Service, the price of the material when it was entered into the ERIC system and the form of the material is indicated. "MF" means microfiche; "HC" means Xerox copy. Prices are subject to change. Current prices of microfiche and paper copies are listed in the back of each issue of Resources in Education; consult the latest monthly issue for current prices. Information about ordering items can also be obtained by contacting:

ERIC Document Reproduction Service (EDRS)
P.O. Box 190
Arlington, Virginia 22210

Telephone: 703-841-1212

Items that are available on microfiche (MF) are contained in microfiche collections at over 700 sites where they can be read. For information on the microfiche locations in your state contact the EPA Information Dissemination Project.

c. ISSUE -- this indicates the monthly issue of Resources in Education in which the resume appeared.

d. INSTITUTION NAME -- organization where document originated.

B. How to Locate Desired Materials

Users can identify materials of interest by scanning the resume listings, or using the Subject Index, Author Index, Institution Index, or Title Index.

1. Subject Index

The Subject Index is designed to enable the user to search for information on either a broad subject or a narrow information concern. An EW number is included for each item listed under the subject heading. The EW number refers to the abstract entry in the resume section where complete bibliographic information, an abstract of the item, and availability information can be found.

A user can also coordinate a search by checking EW numbers that appear under two or more subject headings. For example, you could check all the EW numbers under Water Treatment and all the EW numbers under Films. EW numbers included under both subject headings would include information relevant to Water Treatment that were films. EW numbers under wastewater treatment and laboratory techniques would provide a list of materials related to laboratory techniques and to wastewater treatment. Similar techniques could be used to identify other information desired.

Users with ERIC microfiche should check the resume entry. If the document is available on microfiche from the ERIC Document Reproduction Service, the availability will be indicated by "MF" on the resume by "EDRS Price." This means libraries with ERIC microfiche collections should have the document on microfiche.

If you want a document available through the ERIC Document Reproduction Service (EDRS) see the section on ordering documents.

2. Author Index

If you desire to locate a document by the name of the author, you can use the Author Index. EW numbers are provided under the author in the Author Index as in the Subject Index. Some documents do not have a listed author; hence they are not listed in this index.

3. Title Index to the IRIS Compilation (Not included in the compilation)

The Title Index to the IRIS Compilation is a separate document. It is available from the EPA Information Project for $5.00 prepaid or $5.00 plus postage if invoiced. Supplements will be available on an annual basis for $5.00 beginning in January, 1981.

The Title Index contains all titles in the compilation listed in alphabetical order. If you are searching for material and know the title, you can check the title list to determine if the item is in the IRIS data base. Each title includes the IRIS resume number. The number can be found in the resume section of the compilation.

III. Correcting an Existing IRIS Record

The IRIS data base will be updated on a quarterly basis. Corrections will be made to the data base at those times. You can help improve IRIS by sending corrections for items you find to be in error.

We request that you duplicate (copy) the resume from the compilation, mark the information you believe to be wrong (or incomplete), and send the marked resume to:

EPA Information Dissemination Project
1200 Chambers Road, Rm. 310
Columbus, OH 43212

Corrections of errors will occur in the IRIS tapes at the next update after comments are received.

If you have difficulty obtaining materials from the listed source in the AVAILABILITY section of the resume, please let us know. We will contact the souces to verify whether the materials are available, but your assistance will provide corrections between annual availability checks.

If you are the supplier of materials in IRIS, please let us know if you remove a product from your list, modify a product on your list, or change the price of the product.

IV. Requests to Receive Information about IRIS and the IRC Bulletin

Information regarding IRIS, materials in IRIS, and modifications in the system will be announced in the IRC Bulletin. The Bulletin is issued about six times a year as information is available.

If you are not on the mailing list write to the EPA Information Dissemination Project. Limited numbers of some back issues are still available.

If you need information about IRIS you can also phone 614-422-6717 with your questions.

V. Requests for Assistance in Using IRIS

A. Assistance in use of IRIS manuals.

If you need help in using the IRIS manuals phone 614-422-6717 or write to the EPA Information Dissemination Project. Staff are normally available from about 8:30 a.m. to 4:30 p.m. Eastern time to answer your questions.

B. Assistance in accessing IRIS by computer

1. Conducting searches.

   See section VIII.

2. Subscribing to BRS, Inc. for computer searching of IRIS

   Contact: Bibliographic Retrieval Services, Inc.
   Corporation Park, Building 702
   Scotia, New York 12302

   Phone: 518-374-5011

3. Contacting a computer search service (an agency that will conduct a search for you, usually for a fee)

   The EPA Information Dissemination Project maintains a list of agencies that can conduct searches. Most charge a fee, though some are free to qualified users in a limited geographical area.

   Phone or write to obtain information for your area.

VI. How to Locate Other Relevant Educational Materials

A number of people have requested information related to such areas as management, basic skills (reading, mathematics, writing) human relations, contract negotiations, and other topics. The EPA Information Dissemination Project plans to develop some user service products in selected areas in 1980.

Another excellent source of information for many educational concerns is the ERIC System.

ERIC is a national information system designed and developed by the U.S. Office of Education, and now supported and operated by the National Institute of Education (NIE), for providing ready access to descriptions of exemplary programs, research and development efforts, and related information that can be used in developing more effective educational programs.

There are 16 Clearinghouses in the nationwide ERIC network. Each specializes in a different, multi-discipline, educational area. Each searches out pertinent documents.

The ERIC Clearinghouses have responsibility within the network for acquiring the significant educational literature within their particular areas, selecting the highest quality and most relevant material, processing (i.e., cataloging, indexing, abstracting) the selected items for input to the data base, and also for providing information analysis products and various user services based on the data base.

The 16 ERIC Clearinghouses are listed on the next few pages, together with addresses, telephone numbers, and brief scope notes describing the areas they cover. You can contact them for assistance in locating information relevant to their scope notes.

A. ERIC Clearinghouse for Adult, Career, and Vocational Education
Ohio State University
Center for Vocational Education
1960 Kenny Road
Columbus, Ohio 43210
Telephone: (614) 486-3655

Career education, formal and informal at all levels, encompassing attitudes, self-knowledge, decision-making skills, general and occupational knowledge, and specific vocational and occupational skills; adult and continuing education, formal and informal, relating to occupational, family, leisure, citizen, organizational, and retirement roles; vocational and technical education, including new sub-professional fields, industrial arts, and vocational rehabiliation for the handicapped.

B. ERIC Clearinghouse on Counseling and Personnel Services
University of Michigan
School of Education Building, Room 2108
Ann Arbor, Michigan 48109
Telephone: (313) 764-9492

Preparation, practice, and supervision of counselors at all educational levels and in all settings,theoretical development of counseling and guidance, use and results of personnel procedures such as testing, interviewing, disseminating, and analyzing such information, group work and case work; nature of pupil, student, and adult characteristics; personnel workers and their relation to career planning, family consultations, and student orientation activities.

C. ERIC Clearinghouse on Elementary & Early Childhood Education
University of Illinois
College of Education
Urbana, Illinois 61801
Telephone: (217) 333-1386

Prenatal factors, parental behavior; the physical, psychological, social, educational, and cultural development of children from birth through the primary grades; educational theory, research, and practice related to the development of young children.

D. ERIC Clearinghouse on Educational Management
University of Oregon
Eugene, Oregon 97403
Telephone: (503) 686-5043

Leadership, management, and structure of public and private educational organizations; practice and theory of administration; preservice and inservice preparation of administrators, tasks and processes of administration, methods and varieties of organization, organizational change, and social context of the organization.

Sites, buildings, and equipment for education; planning, financing, constructing, renovating, equipping, maintaining, operating, insuring, utilizing, and evaluating educational facilities.

E. ERIC Clearinghouse on Handicapped and Gifted Children
Council for Exceptional Children
1920 Association Drive
Reston, Virginia 22091
Telephone: (703) 620-3660

Aurally handicapped, visually handicapped, mentally handicapped, physically handicapped, emotionally disturbed, speech handicapped, learning disabilities, and the gifted; behavioral, psychomotor, and communication disorders, administration of special education services; preparation and continuing education of professional and paraprofessional personnel; preschool learning and development of the exceptional; general studies on creativity.

F. ERIC Clearinghouse on Higher Education
George Washington University
One Dupont Circle, Suite 630
Washington, DC 20036
Telephone: (202) 296-2597

Various subjects relating to college and university students, college and university conditions and problems, college and university programs; curricular and instructional problems and programs, faculty, institutional research; federal programs, professional education (medical, law, etc.), graduate education, university extension programs, teaching-learning, planning, goverance, finance, evaluation, interinstitutional arrangements, and management of higher educational institutions.

G. ERIC Clearinghouse on Information Resources
Syracuse University
School of Education
Syracuse, New York 13210
Telephone: (315) 423-3640

Management, operation, and use of libraries; the technology to improve their operation and the education, training, and professional activities of librarians and information specialists. Educational techniques involved in microteaching, systems analysis, and programmed instruction employing audiovisual teaching aids and technology, such as television, radio, computers, and cable television, communication satellites, microforms, and public television.

H. ERIC Clearinghouse for Junior Colleges
University of California
Powell Library, Room 96
Los Angeles, California 90024
Telephone: (213) 825-3931

Development, administration, and evaluation of public and private community junior colleges. Junior college students, staff, curricula, programs, libraries, and community services.

I. ERIC Clearinghouse on Languages and Linguistics
Center for Applied Linguistics
1611 North Kent Street
Arlington, Virginia 22209
Telephone: (703) 528-4312

Languages and linguistics. Instructional methodology, psychology of language learning, cultural and intercultural content, application of linguistics, curricular problems and developments, teacher training and qualifications, language sciences, psycholinguistics, theoretical and applied linguistics, language pedagogy, bilingualism, and commonly taught languages including English for speakers of other languages.

J. ERIC Clearinghouse on Reading and Communication Skills
National Council of Teachers of English
1111 Kenyon Road
Urbana, Illinois 61801
Telephone: (217) 328-3870

Reading, English, and communication skills, preschool through college. Educational research and development in reading, writing, speaking, and listening. Identification, diagnosis, and remediation of reading problems. Speech communication--forensics, mass communication, interpersonal and small group interaction, interpretation, rhetorical and communication theory, instruction development, speech sciences, and theater. Preparation of instructional staff and related personnel in these areas.

All aspects of reading behavior with emphasis on physiology, psychology, sociology, and teaching. Instructional materials, curricula, tests and measurement, preparation of reading teachers and specialists, and methodology at all levels. Role of libraries and other agencies in fostering and guiding reading. Diagnostic and remedial services in school and clinical settings.

K. ERIC Clearinghouse on Rural Education and Small Schools
New Mexico State University
Box 3AP
Las Cruces, New Mexico 88003
Telephone: (505) 646-2623

Education of Indian Americans, Mexican Americans, Spanish Americans, and migratory farm workers and their children; outdoor education; economic, cultural, social, or other factors related to educational programs in rural areas and small schools; disadvantaged of rural and small school populations.

L. ERIC Clearinghouse for Science, Mathematics, and Environmental Education
Ohio State University
1200 Chambers Road, Third Floor
Columbus, Ohio 43212
Telephone: (614) 422-6717

All levels of science, mathematics, and environmental education; development of curriculum and instructional materials; media applications; impact of interest, intelligence, values, and concept development upon learning; preservice and inservice teacher education and supervision.

M. ERIC Clearinghouse for Social Studies/Social Science Education
855 Broadway
Boulder, Colorado 80302
Telephone: (303) 492-8434

All levels of social studies and social science; all activities relating to teachers; content of disciplines; applications of learning theory, curriculum theory, child development theory, and instructional theory; research and development programs; special needs of student groups; education as a social science; social studies/social science and the community.

N. ERIC Clearinghouse on Teacher Education
American Association of Colleges for Teacher Education
One Dupont Circle, NW, Suite 616
Washington, DC 20036
Telephone: (202) 293-7280

School personnel at all levels; all issues from selection through preservice and inservice preparation and training to retirement; curricula; educational theory and philosophy; general education not specifically covered by Educational Management Clearinghouse; Title XI NDEA Institutes not covered by subject speciality in other ERIC Clearinghouses; all aspects of physical education.

O. ERIC Clearinghouse on Tests, Measurement, and Evaluation
Educational Testing Service
Princeton, New Jersey 08540
Telephone: (609) 921-9000 ext. 2176

Tests and other measurement devices; evaluation procedures and techniques; application of tests, measurement, or evaluation in educational projects or programs.

P. ERIC Clearinghouse on Urban Education
Box 40
Teachers College, Columbia University
525 W. 120th Street
New York, New York 10027
Telephone: (212) 678-3437

The relationship between urban life and schooling; the effect of urban experiences and environments from birth onward; the academic, intellectual, and social performance of urban children and youth from grade three through college entrance (including the effect of self concept, motivation, and other affective influences); education of urban, Puerto Rican and Asian American populations, and rural and urban black populations; programs and practices which provide learning experiences designed to meet the special needs of diverse populations served by urban schools and which build upon their unique as well as their common characteristics; structural changes in the classroom, school, school system, and community and innovative instructional practices which directly affect urban children and youth; programs, practices, and materials related to economic and ethnic discrimination, segregation, desegregation, and integration in education; issues, programs, practices, and materials related to redressing the curriculum imbalance in the treatment of ethnic minority groups.

Q. Educational Resources Information Center
Central ERIC
National Institute of Education
Washington, DC 20208
Telephone: (202) 254-5555

There are other sources of educational information in many states. Included are information dissemination units in the state departments of education, intermediate education units, and local education units. In many cases, a local school administrator or school librarian can help you locate assistance.

VII. How to Structure a Computer Search of IRIS

This explanation relates to the IRIS data base that can be searched on-line through Bibliographic Retrieval Services, Inc. As IRIS becomes available through other sources, information relevant to those services will be provided.

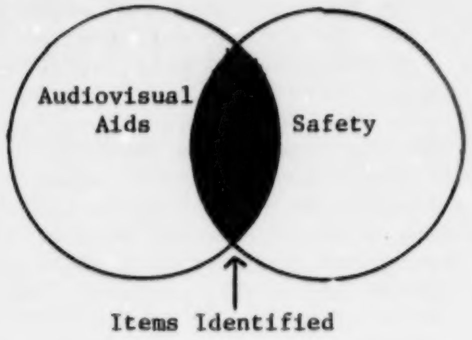
A few notes about the service are important. The following fields are searchable by computer: (1) IRIS Accession Number (EW number), (2) ERIC Accession Number (ED number), (3) Authors, (4) Institution (5) Title, (6) subject index terms, and (7) abstract.

If you submit a search of IRIS through BRS, the program will search for the words you select in three fields unless the searcher requests to limit the search. These fields are: (1) the title field, (2) the subject index field, and (3) the abstract. We recommend you use this feature especially for searches on specific terms. If you find more material than you want by this technique you can narrow the search to items that may have the most information on the topic by limiting the search to the subject index field.

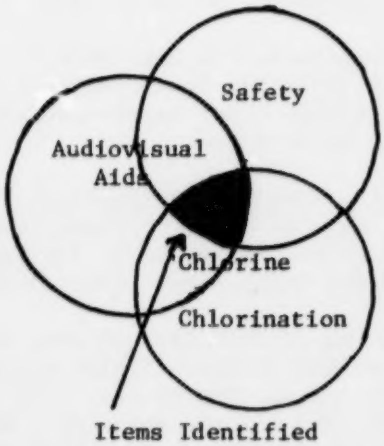
Several sample searches are listed.

A. Sample 1

If you want to locate audiovisual aids that relate to safety you would submit a search with audiovisual aids and safety. Materials that included the terms both audiovisual aids and safety in the title field, the abstract, and the subject index field would be identified by the computer.

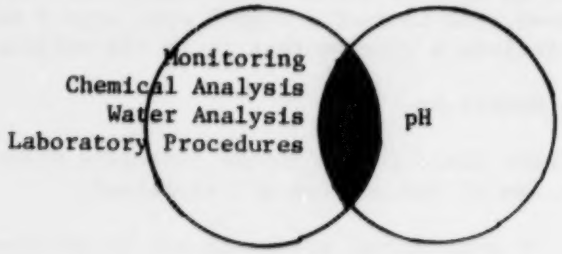

Audiovisual
Aids
Safety
Items Identified

The computer program can tell you the number of items, the title of the items, or print the entire resume of each item. If you were primarily interested in audiovisual aids, safety, and chlorine you would submit a search of these three terms. You might want to include chlorides and chlorination as well as chlorine in the search. This search would identify materials that contained audiovisual aids, safety, and one or more of the words, chlorine, and chlorination.


Safety
Audiovisual
Aids
Chlorine
Chlorination
Items Identified

B. Sample 2

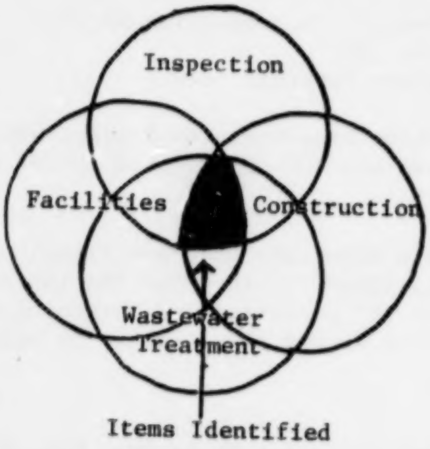
If you want to identify materials related to monitoring, you should include several related terms and the chemical, material, or situation that is being monitored. See the example below.


Monitoring
Chemical Analysis
Water Analysis
Laboratory Procedures
pH

This search would identify all the items that included any of the terms on the left and pH.

C. Sample 3

If you are interested in materials related to inspection and construction you could conduct a search of these two terms. The search would identify all materials that included both terms. If you were interested in only wastewater treatment facilities you could construct a search as diagrammed.


Inspection
Facilities
Construction
Wastewater
Treatment
Items Identified

This search would yield specific materials and demonstrates how a computer search can help you locate materials you want.

D. Use of the Subject Index

The subject index in the back of the compilation can be used to help you decide if you want to do a computer search. If there are relatively few entries, you can check the resumes in the resume section. If there is a large number of entries (perhaps 50 or more) you may want to use a computer search.

As the data base gets larger, you will find more entries for subject index terms and computer searching will offer more advantages.

The subject index can also be used to help you select words to include in a search. Words listed in the subject index are certain to be in the searchable fields. Therefore, selecting these terms to use in structuring a search will increase the probability of locating materials. Some words will appear in the title or abstract that are not included in the subject term field. Such words can be used to check if any materials are in the data base. If, however, you conduct a search with such a word it is usually best to include a synonym that is in the subject index.

VIII. How to Order Materials

The AVAILABILITY field in the resume indicates where materials can be obtained. A few of the sources are explained.

A. A number of audiovisual materials can be obtained on loan from the EPA National Training and Operational Technology Center, Cincinnati, Ohio 45268. They also offer a copy service to reproduce materials at a very reasonable price.

B. Some of the materials are available through the ERIC Document Reproduction Service. MF (microfiche) are 4" x 6" sheets of microfilm; up to 96 pages of text can be reproduced on one sheet. HC (paper copy) is a reproduction of the document in paper form at the original size.

Order forms for these materials can be obtained from:

ERIC Document Reproduction Service
P.O. Box 190
Arlington, Virginia 22210

C. The EPA Information Dissemination Project will provide xerox copies of materials that are not copyrighted for $1.00 per document plus $0.03 per page.

If you can not obtain materials that are listed or have difficulty obtaining materials, please contact the EPA Information Dissemination Project. We can provide assistance in obtaining materials from some sources. If materials become unavailable, we will remove them from the IRIS data base.

IX. USEPA
National Training and Operation Technology Center
Cincinnati, Ohio 45268

To fulfill national educational and training requirements, USEPA has organized the National Training and Operational Technology Center (NTOTC). NTOTC has the responsibility for planning, developing, conducting and evaluating USEPA's water pollution control training and education program. As an instructional resource, its purpose is to help regions, states, local governments and educational institutions to become knowledgeable about USEPA's goals, regulations, strategies, as well as the implications of USEPA programs which affect virtually everyone.

Activities encompass three categories: (1) instruction; (2) course development; and (3) information management.

Instruction--NTOTC offers a variety of training courses in water quality control. Such courses are taught at many locations, but most are presented at the Environmental Research Center in Cincinnati, Ohio. A current project will expand this effort to enable more environmental personnel to receive specialized instruction. Area training centers will soon act as satellites to the NTOTC program, offering similar courses and instructional support. Select universities with broad pollution control curricula will act as area training centers within a region. As a result, more pollution control personnel will have access to needed specialized training.

Since 1971, the NTOTC professional staff of chemists, biologists and engineers has presented nearly 350 courses to more than 8,000 students. Courses are offered throughout the year, and are designed to help participants understand current pollution control techniques and procedures. As USEPA regulations and policies are implemented, based in large part on USEPA research, courses are offered by NTOTC staff to upgrade knowledge and develop specific skills or procedures.

Some courses are conducted at wastewater treatment plants, enabling USEPA to work directly with plant personnel to improve treatment plant effluent. While working on site at treatment plants, staff can diagnose and discuss particular problems and can provide information on design and operation to many technicians within the local region.

Courses currently are offered in five general categories: wastewater treatment technology, treatment facility evaluation and inspection, water quality surveillance and monitoring, water quality analysis, and drinking water quality monitoring.

Students attend courses from all states, and from some foreign countries. The largest percentage represent federal, state, and municipal pollution control agencies. A relatively small number of college and university instructors attend these short courses which are typically one week in length. USEPA encourages more participation by the educational community, so that current skills and knowledge will be transmitted to students to enable them to deal with pollution control problems as they enter environmental occupations. Community college and university instructors may attend courses free of charge by following prescribed application procedures.

Course Development--NTOTC is active in the field of course development. As new educational and training needs are identified, appropriate instructional packages are developed. Almost all such development is based on current research and agency regulations. Materials include instructor guides, student manuals and supporting audiovisual materials. If USEPA's pollution control training programs are to be successfully implemented, college and university staff from various departments must cooperate and integrate these instructional activities within their curriculums; or students will not be adequately prepared, either theoretically or practically.

Information Management--The goal of USEPA's information management system is to support, in a comprehensive and systematic manner, those involved with pollution control education and training. A central location within the NTOTC facility is designed to provide a contact point and to coordinate assistance efforts and has been designated the Instructional Resources Center (IRC).

As the education and training community has become more aware of the types of programs operated by the IRC, requests for information have expanded dramatically. Many requests for assistance from instructors, information specialists, municipal water and wastewater treatment plant trainers, and representatives of government and business have been received.

Through the IRC, NTOTC maintains a central location to inventory, evaluate, catalog and disseminate instructional materials in the areas of water pollution control, water supply, and pesticides. Composed of several different but interrelated activities, it acts as a primary communications link between USEPA and educators at all post-secondary levels.

The IRC includes an audiovisual lending library housing slide/tape presentations, films and videotapes, all available for free, short-term loan. Most subject areas available are water quality-oriented.

Interested persons are invited to Cincinnati to use IRC facilities for reviewing tapes, slides, films, and other materials before deciding about purchases or curriculum development requirements. IRC staff assist visitors by determining the most appropriate ways to use the Center's resources, or in determining educational and training program requirements and available resources. During the past year, universities and state and local governments have been assisted with curriculum design, course materials selection, and audiovisual support efforts.

For more information on NTOTC write to the center at the following address:

National Training and Operational
Technology Center (NTOTC)
26 West St. Clair
Cincinnati, Ohio 45268

Telephone: (513) 684-7501

RESUME SECTION

IRIS ACCESSION NUMBER: EW003555

PUBLICATION DATE: APR 77

TITLE: THE MIT/MARINE INDUSTRY COLLEGIUM OPPORTUNITY BRIEF #6. ELECTRON IRRADIATION, SEWAGE SLUDGE AND AQUALCULTURE.

DESCRIPTOR: *AQUACULTURE; COST EFFECTIVENESS; *ELECTRON IRRADIATION; FACILITIES; FERTILIZERS; *OCEANOLOGY; PATHOGENS; POLLUTION CONTROL; *SLUDGE; *SLUDGE DISPOSAL; *WASTEWATER TREATMENT; WASTE DISPOSAL

DESCRIPTIVE NOTE: 28P.

ABSTRACT: THE CURRENT STATE OF ELECTRON IRRADIATION AS A SLUDGE STERILIZATION METHOD IS REVIEWED. THE COSTS OF EXISTING METHODS ARE COMPARED AND SOME ECONOMIC PROJECTIONS ABOUT THE PRODUCTION AND SALE OF SLUDGE AS FERTILIZER ARE MADE. ALSO EXAMINED IS THE USE OF IRRADIATED SLUDGE AS A NUTRIENT ENERGY BASE FOR AQUACULTURAL SYSTEMS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION CENTER, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

INSTITUTION NAME: SEA GRANT PROGRAM.

IRIS ACCESSION NUMBER: EW003783

PUBLICATION DATE: 78

TITLE: ENGINEERS HANDBOOK: HYDROGEN PEROXIDE INSTALLATIONS FOR WASTE TREATMENT APPLICATIONS.

DESCRIPTOR: *CHEMICAL TREATMENT; DESIGN; *ENGINEERING HANDBOOK; *EQUIPMENT; *FACILITIES; *HYDROGEN PEROXIDE; HYDROGEN SULFIDE; *OPERATIONS (WASTEWATER); *WASTEWATER TREATMENT; WATER POLLUTION CONTROL; WATER TREATMENT

DESCRIPTIVE NOTE: PRICE: FREE

ABSTRACT: THIS HANDBOOK CONTAINS PRACTICAL INFORMATION FOR SPECIFYING A HYDROGEN PEROXIDE WASTE TREATMENT INSTALLATION. CONTENTS INCLUDE A CHAPTER ON WHEN TO CONSIDER HYDROGEN PEROXIDE: HYDROGEN SULFIDE GENERATION, CORROSION, BULKING, HYDROGEN PEROXIDE TREATMENT, AND COMPARISON WITH OTHER CHEMICAL TREATMENTS. ANOTHER CHAPTER EXAMINES HOW TO SELECT HYDROGEN PEROXIDE HANDLING AND STORAGE EQUIPMENT: SHIPPING METHODS, PEROXIDE INJECTION SYSTEMS, MATERIALS SUITABLE FOR USE WITH HYDROGEN PEROXIDE, STORAGE SYSTEMS AND ECONOMICS. A THIRD MAJOR SECTION OUTLINES SPECIFIC FACTS ABOUT HYDROGEN PEROXIDE AND ITS USE: OXIDATION OF CHEMICAL POLLUTANTS WITH HYDROGEN PEROXIDE, REACTIONS WITH INORGANIC SALTS, AND PHYSICAL PROPERTIES. ALSO INCLUDED ARE BLUEPRINTS OF TYPICAL HYDROGEN PEROXIDE STORAGE INJECTION AND FEED METERING SYSTEMS.

AVAILABILITY: FMC CORPORATION, INDUSTRIAL CHEMICAL GROUP, 2000 MARKET ST, DEPT N, PHILADELPHIA, PA 19103

IRIS ACCESSION NUMBER: EW004371

PUBLICATION DATE: 78

TITLE: DESIGN OF MUNICIPAL SLUDGE COMPOST FACILITIES.

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *COMPOSTING; *DESIGN; *ECONOMICS; *FACILITIES; HEALTH; *MUNICIPALITIES; MARKETING; QUALITY CONTROL; *SLUDGE; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 200P. PRICE: $25.00

ABSTRACT: THESE CONFERENCE PROCEEDINGS CONSIST OF 31 PAPERS PRESENTED AT THE NATIONAL CONFERENCE ON DESIGN OF MUNICIPAL SLUDGE COMPOST FACILITIES. SPECIFIC TOPICS INCLUDE: (1) RULES AND REGULATIONS, (2) BASIC COMPOSTING CONSIDERATIONS, (3) HEALTH ASPECTS, (4) COMPOST ENGINEERING, (5) QUALITY CONTROL, (6) FOREIGN EXPERIENCE, AND (7) ECONOMICS AND MARKETING.

AVAILABILITY: INFORMATION TRANSFER, INC., 9300 COLUMBIA BLVD, SILVER SPRING, MARYLAND 20910

IRIS ACCESSION NUMBER: EW004380

PUBLICATION DATE: 79

TITLE: HOW TO PREPARE AN EFFECTIVE COMPANY OPERATIONS MANUAL.

PERSONAL AUTHOR: SELTZ, DAVID D.; RADLAVER, MARVIN I.

DESCRIPTOR: ADMINISTRATION; *FLOW CHARTS; *MANAGEMENT; *ORGANIZATION; *OPERATIONS MANUALS; *POLICIES; *PERSONNEL

DESCRIPTIVE NOTE: 234P. PRICE: $49.50

ABSTRACT: THIS BOOK WHICH WAS WRITTEN BY MANCEMENT CONSULTANTS, OUTLINES THE STAGES IN THE DEVELOPMENT OF AN OPERATIONS MANUAL. METHODOLOGY AND CONTENT OF DATA COLLECTION AND ANALYSIS ARE CAREFULLY DETAILED. DEVELOPMENT OF THE MANUAL THROUGH TO THE PRINTING OF THE FINAL DRAFT ARE INCLUDED.

AVAILABILITY: DARTNELL, 4660 RAVENSWOOD AVENUE, CHICAGO, IL 60640

IRIS ACCESSION NUMBER: EW004404

PUBLICATION DATE: 78

TITLE: DIRECTORY OF MANAGEMENT EDUCATION PROGRAMS-VOLUMES I & II.

DESCRIPTOR: *DIRECTORIES; DISTRIBUTIVE EDUCATION; *INSTRUCTION; LEADERSHIP TRAINING; *MANAGEMENT; *MANAGEMENT DEVELOPMENT; *MANAGEMENT EDUCATION; MANPOWER DEVELOPMENT; *PROGRAM DESCRIPTIONS; *PROGRAM GUIDES; *SKILL DEVELOPMENT; TRAINING

DESCRIPTIVE NOTE: 1310P. PRICE: $175.00 NON-MEMBER, $150.00 MEMBER

ABSTRACT: PRESENTED IN THIS TWO VOLUME WORK IS A DIRECTORY OF MANAGEMENT EDUCATION PROGRAMS WITH A DESCRIPTION OF: (1) THE PROGRAM, (2) FEES, AWARD, AND METHOD OF EVALUATION OF THE PARTICIPANT, (3) THE PROFILE OF THE INSTRUCTIONAL STAFF, AND (4) THE PROFILE OF RECENT PARTICIPANTS. THE PROGRAM DESCRIPTION INCLUDES SUCH TOPICS AS: THE AIMS OR OBJECTIVES, THE MAJOR TOPICS, FOR WHOM THE PROGRAM WAS DESIGNED, THE PROGRAM LOCATION, THE LENGTH OF THE PROGRAM, RESIDENCE CHARACTERISTICS, AND THE ADMISSION REQUIREMENTS. THE DIRECTORY WAS COMPILED BY THE MANAGEMENT DEVELOPMENT RESOURCE SERVICE OF THE AMERICAN MANAGEMENT ASSOCIATION FROM INFORMATION SUPPLIED BY THE CONTRIBUTORS WHO SPONSOR THE PROGRAMS. THE TYPES OF PROGRAMS INCLUDED IN THE DIRECTORY INCLUDE THE FOLLOWING: (1) NON-CREDIT PROGRAMS WHICH ARE NOT PART OF AN UNDERGRADUATE DEGREE PROGRAM, (2) RECURRING PROGRAMS (CONDUCTED AT LEAST ONCE A YEAR) THAT ARE REGULARLY SCHEDULED OR AVAILABLE TO PROSPECTIVE USERS AT MUTUALLY NEGOTIATED LOCATIONS AND TIMES, (3) PROGRAMS THAT ARE AVAILABLE TO LARGE SEGMENTS OF THE MANAGEMENT COMMUNITY, AND (4) PROGRAMS THAT ARE OF INTEREST TO THE MANAGEMENT COMMUNITY IN THE BROADEST SENSE INCLUDING PROGRAMS THAT MAY EVEN BE MORE TECHNICAL THAN MANAGERIAL IN CONTENT. VOLUME 1 CONTAINS PROGRAMS AVAILABLE FROM ACADEMIC SOURCES WHILE VOLUME 2 CONTAINS PROGRAMS AVAILABLE FROM OTHER MORE GENERAL SOURCES.

AVAILABILITY: AMERICAN MANAGEMENT ASSOCIATIONS, 135 WEST 50TH STREET, NEW YORK, NY 10020

IRIS ACCESSION NUMBER: EW004467

PUBLICATION DATE: 70

TITLE: WATER UTILITY ACCOUNTING.

PERSONAL AUTHOR: HAY, LEON E.; GRINNELL, D. J.

DESCRIPTOR: *ACCOUNTING; *ECONOMICS; *MANAGEMENT REPORTS; *PLANNING; *RECORDS; *TAXES; *WATER UTILITIES

DESCRIPTIVE NOTE: 235P. PRICE: $10.00

ABSTRACT: THIS MANUAL IS DESIGNED FOR THE FORMALLY TRAINED ACCOUNTANT OPERATING IN THE WATER WORKS FIELD. IT CONTAINS SUGGESTIONS FOR IMPLEMENTING ACCOUNTING PROCEDURES THAT REFLECT THE UTILITY STATUS OF TODAYS WATER WORKS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION, 6666 WEST QUINCY AVE, DENVER, COLORADO 80235

IRIS ACCESSION NUMBER: EW004476

PUBLICATION DATE: 78

TITLE: ACTIVATED SLUDGE PACKAGE PLANT OPERATIONS MANUAL.

PERSONAL AUTHOR: QUICK, FRANK L.

DESCRIPTOR: *ACTIVATED SLUDGE; *FACILITIES; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *OPERATIONS (WASTEWATER); SOLIDS HANDLING; TERTIARY TREATMENT; *TRAINING MANUALS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 140P.

ABSTRACT: THIS MANUAL WAS WRITTEN AS PART OF THE OPERATOR TRAINING UNIT. IT IS INTENDED TO BRIDGE THE GAPS BETWEEN TRAINING COURSES, TELEPHONE CALLS TO THE AGENCY, AND ON-SITE ASSISTANCE SESSIONS. THIS MANUAL IS DESIGNED TO PROVIDE EASY ACCESS TO REFERENCE INFORMATION WHICH WILL ASSIST IN PREVENTING PROBLEMS THROUGH RESPONSIBLE OPERATION AND MAINTENANCE PROCEDURES. IT PRESENTS THE HOWS AND WHYS OF THE SYSTEM, ITS PARTS, AND POTENTIAL PROBLEMS.

AVAILABILITY: MINNESOTA POLLUTION CONTROL AGENCY, 1935 WEST COUNTY ROAD B2, ROSEVILLE, MINNESOTA 55113

IRIS ACCESSION NUMBER: EW004532

PUBLICATION DATE: JUL 79

TITLE: MARYLAND MANPOWER INFORMATION SYSTEM FOR MUNICIPAL WATER AND WASTEWATER FACILITIES.

PERSONAL AUTHOR: AUSTIN, JOHN H.; AND HOLTAN, ANDREW

DESCRIPTOR: *CERTIFICATION; *DATA COLLECTING SYSTEMS; FACILITIES; *INFORMATION SYSTEMS; *MUNICIPALITIES; *MANPOWER NEEDS; *PLANNING; *TRAINING NEEDS; *UTILITIES; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 163P.

ABSTRACT: THIS REPORT SETS IN FOCUS THE INFORMATION NEEDS OF THE MARYLAND DEPARTMENT OF HEALTH AND MENTAL HYGIENE AND OTHER GROUPS FOR PLANNING, DEVELOPING AND IMPLEMENTING PROGRAMS TO PROVIDE THE PROPERLY TRAINED MANPOWER TO OPERATE AND MAINTAIN THE WATER AND WASTEWATER FACILITIES OF THE STATE.

AVAILABILITY: ENVIRONMENTAL HEALTH ADMINISTRATION, DEPARTMENT OF HEALTH AND MENTAL HYGIENE, P.O. BOX 13387, BALTIMORE, MD 21203

IRIS ACCESSION NUMBER: EW004534

PUBLICATION DATE: 78

TITLE: BASICS OF FILTRATION AND SEPARATION.

PERSONAL AUTHOR: BALLEW, H. W.; AND STAFF

DESCRIPTOR: *CENTRIFUGATION; FLUID FLOW; *FILTRATION; *FILTER SYSTEMS; *FILTER MEDIA; *LABORATORY TECHNIQUES; *SEPARATION PROCESSES

DESCRIPTIVE NOTE: 69P.

ABSTRACT: THIS HANDBOOK IS DESIGNED TO CONVEY A BASIC UNDERSTANDING OF FILTRATION AND SEPARATION PRINCIPLES TO THOSE NOT IN THE FIELD. IT PROVIDES A COMPARISON OF CENTRIFUGATION VERSUS FILTRATION, ADVICE ON SELECTING AN APPROPRIATE FILTER MEDIUM, DESCRIPTION OF SEVERAL TYPES OF FILTER SYSTEMS, METHODOLOGY OF MEMBRANE SEPARATIONS AND MICROFILTRATION PROCEDURES.

AVAILABILITY: NUCLEPORE CORPORATION, 7035 COMMERCE CIRCLE, PLEASANTON, CA 94566

IRIS ACCESSION NUMBER: EW004535

PUBLICATION DATE: 76

TITLE: PROCEEDINGS OF 1976 NATIONAL WASTE PROCESSING CONFERENCE, SUPPLEMENT-DISCUSSIONS.

DESCRIPTOR: COST EFFECTIVENESS; CORROSION CONTROL; ECONOMICS; EMISSIONS; *ENERGY CONSERVATION; FUELS; INCINERATORS; *INDUSTRIAL WASTES; *MUNICIPAL WASTES; METHANE; *RECYCLING; SOLID WASTES; *WASTE DISPOSAL; *WASTE PROCESSING; *WASTE UTILIZATION

DESCRIPTIVE NOTE: 148P.

ABSTRACT: PAPERS PRESENTED IN THIS VOLUME COVER A WIDE VARIETY OF TOPICS RELATED TO WASTE PROCESSING IN EUROPE AND NORTH AMERICA, FUEL PRODUCTION FROM REFUSE, ECONOMICS OF RECYCLING, RESEARCH NEEDS IN REPROCESSING, MATERIALS RECOVERY PROCESSING, PYROLYSIS, THERMAL DISPOSAL OF WASTES, EMISSIONS STANDARDS, INCINERATOR PERFORMANCE, POLLUTION ABATEMENT, CORROSION CONTROL AND INNOVATIVE PROCESSING SYSTEMS.

AVAILABILITY: THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS, UNITED ENGINEERING CENTER, 345 EAST 47TH STREET, NEW YORK, NEW YORK 10017

IRIS ACCESSION NUMBER: EW004560

PUBLICATION DATE: SEP 79

TITLE: A CERTIFICATION PROGRAM FOR WATER AND WASTEWATER LABORATORY PERSONNEL.

DESCRIPTOR: ANALYTICAL TECHNIQUES; *CERTIFICATION; *EVALUATION; *INSTRUCTION; *LABORATORY TECHNIQUES; *LABORATORY PERSONNEL; *OPERATIONS (WASTEWATER); *OPERATIONS (WATER); *PROGRAM DESCRIPTIONS; *QUALIFICATIONS; *TRAINING; *WATER TREATMENT; *WASTEWATER TREATMENT; *WATER RESOURCES

DESCRIPTIVE NOTE: 17P.

ABSTRACT: THE REPORT CONTAINS DETAILS OF THE ASSOCIATION OF BOARDS OF CERTIFICATIONS PROPOSED LABORATORY PERSONNEL CERTIFICATION PROGRAM. RECOMMENDATIONS ARE MADE REGARDING STANDARD LEVELS OF COMPETENCY AND DESERVED QUALIFICATIONS.

AVAILABILITY: ABC ADMINISTRATIVE OFFICE, MUNICIPAL BUILDING, AMES, IOWA 50010

IRIS ACCESSION NUMBER: EW004563

PUBLICATION DATE: 72

TITLE: WASHINGTON STATE, WATERWORKS MANUAL-BASIC.

DESCRIPTOR: *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *MANAGEMENT; *OPERATIONS (WATER); PUBLIC RELATIONS; WATER QUALITY; *WATER SUPPLY; *WATER UTILITIES; *WATER TREATMENT; *WATER DISTRIBUTION SYSTEM

DESCRIPTIVE NOTE: 228P. PRICE: $10.00

ABSTRACT: THIS MANUAL WAS PREPARED FOR WATER UTILITY PERSONNEL IN THE STATE OF WASHINGTON. IT IS INTENDED TO PRESENT MATERIAL NECESSARY TO IMPROVE THE WORKING KNOWLEDGE OF THESE PEOPLE. THE MANUAL INCLUDES TOPICS ON COMMUNICATIONS, WATERWORKS HYDRAULICS, DISTRIBUTION, PUMPING AND STORAGE, MATERIALS, METERS AND RECORDS, WATER QUALITY, WATER MAINS AND SERVICE INSTALLATIONS, SYSTEM MAINTENANCE, WATER ECONOMICS AND PUBLIC RELATIONS.

AVAILABILITY: GREEN RIVER COMMUNITY COLLEGE, 12401 S.E. 320TH ST., AUBURN, WA 98002

IRIS ACCESSION NUMBER: EW004587

PUBLICATION DATE: JUL 78

TITLE: MANUAL OF METHODS: PRESERVATION AND ANALYSIS OF COAL GASIFICATION WASTEWATERS.

PERSONAL AUTHOR: LUTHY, RICHARD G.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; ASSESSMENT; CHEMICAL ANALYSIS; *COAL GASIFICATION; *COAL GASIFICATION WASTEWATERS; ENVIRONMENTAL IMPACT; INDUSTRIAL TECHNOLOGY; *LABORATORY TECHNIQUES; LABORATORY TESTING; MONITORING; *OPERATIONS (WASTEWATER); SAMPLE PRESERVATION; *SAMPLING METHODS; TESTING; *WASTEWATER TREATMENT; *WASTEWATER ANALYSIS

DESCRIPTIVE NOTE: 49P. PRICE: $5.25

ABSTRACT: THE ENVIRONMENTAL STUDIES INSTITUTE OF CARNEGIE MELLON UNIVERSITY HAS BEEN ENGAGED BY ERDA TO PROVIDE A RANGE OF ASSISTANCE, COORDINATION, AND EVALUATION SERVICES IN A PROGRAM FOR ENVIRONMENTAL ASSESSMENT IN THE ERDA HIGH-BTU COAL GASIFICATION PROGRAM. WITH THE COOPERATION AND ASSISTANCE OF OTHER ENVIRONMENTAL ASSESSMENT CONTRACTORS IN THE PROGRAM, CARNEGIE MELLON HAS DEVELOPED AND TESTED A MODIFIED SET OF PRESERVATION AND ANALYSIS PROCEDURES FOR THE FOLLOWING PRIORITY COAL GASIFICATION WASTEWATER PARAMETER GROUPS: (1) PHYSICAL PROPERTIES, (2) INORGANIC NON-METALS, (3) NITROGEN, (4) PHOSPHOROUS, (5) SULFUR, (6) ORGANIC CONSTITUENTS, AND (7) OXYGEN DEMAND. THIS REPORT CONSTITUTES A MANUAL OF METHODS FOR 23 SPECIFIC PARAMETERS WITHIN THESE SEVEN GROUPS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICES, OPERATIONS DIVISION, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW004602

TITLE: PROCEEDINGS OF THE WATER REUSE SYMPOSIUM-THREE VOLUMES.

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *CONSERVATION; ENVIRONMENTAL EFFECTS; ECONOMICS; HEALTH EFFECTS; LEGAL FACTORS; *RECYCLING; *WATER RESOURCES; *WATER REUSE; *WATER CONSERVATION; WATER QUALITY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 2400P. PRICE: $15.00 A SET

ABSTRACT: THIS VOLUME PRESENTS SYMPOSIUM PROCEEDINGS DEALING WITH THE RENOVATION AND REUSE OF WASTEWATERS FROM MUNICIPAL, INDUSTRIAL AND AGRICULTURAL SOURCES. THE PAPERS DEMONSTRATE (1) THAT SIGNICICANT GLOBAL INTEREST EXISTS IN WASTEWATER REUSE, (2) THAT RECYCLING CONCEPTS ARE BEING APPLIED TO A BROAD RANGE OF FUNCTIONS, (3) THAT APPLICATION OF WATER REUSE MAY BE HIGHLY SITUATION DEPENDENT, AND (4) THAT REUSE APPLICATIONS ARE IMPORTANT SOLUTIONS TO CONSERVATION OF WATER.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION, 6666 WEST QUINCY AVE, DENVER, CO 80235

IRIS ACCESSION NUMBER: EW004629

PUBLICATION DATE: 78

TITLE: DICHLOROBENZIDINE: AMBIENT WATER QUALITY CRITERIA.

DESCRIPTOR: *AMBIENT WATER QUALITY; *DICHLOROBENZIDINE; *PUBLIC HEALTH; *STANDARDS; *WATER QUALITY; *WATER QUALITY CRITERIA

DESCRIPTIVE NOTE: 43P. PRICE: $4.50

ABSTRACT: THIS PAPER ANALYZES EXPERIMENTAL STUDIES WHICH EXAMINE DICHLOROBENZIDINE IN RELATION TO MAMMALIAN TOXICOLOGY AND HUMAN HEALTH. IT CONTAINS A DETAILED REVIEW OF LABORATORY AND EPIDEMIOLOGICAL STUDIES ON EXPOSURE TO THE CHEMICAL, PHARMOKINETICS AND CHEMICAL EFFECTS, INCLUDING ACUTE, SUB-ACUTE AND CHRONIC TOXICITY, TERATOGENICITY, MUTAGENICITY AND CARCINOGENICITY. THE SECOND HALF OF THE PAPER CITES EXISTING GUIDELINES/STANDARDS, EXAMINES CURRENT LEVELS OF EXPOSURE, AND DISCUSSES SPECIAL GROUPS WHICH ARE AT RISK FROM THE CHEMICAL. AMBIENT WATER QUALITY CRITERIA ARE THEN FORMULATED BASED ON THE RESULTS OF EXISTING EXPERIMENTAL STUDIES AND AVAILABLE DATA.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, OPERATIONS DIVISION, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW004642

PUBLICATION DATE: APR 78

TITLE: SUMMARY OF WRC EQUIPMENT DEVELOPED FOR BIOLOGICAL MONITORING OF WATER QUALITY.

PERSONAL AUTHOR: WORDINGHAM, V.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; BIOLOGICAL MONITORING; *FISH; HEART MUSCLES; *INSTRUMENTATION; *LABORATORY EQUIPMENT; *MONITORING; *WATER RESEARCH CENTER; *WATER QUALITY

DESCRIPTIVE NOTE: 20P. PRICE: $4.00

ABSTRACT: DESCRIBED IS THE LABORATORY EQUIPMENT THAT THE WATER RESEARCH CENTER IS USING TO MEASURE CHANGES IN ELECTRICAL SIGNALS PRODUCED BY THE HEAT MUSCLES IN FISH. THIS FORM OF BIOLOGICAL MONITORING WILL BE UTILIZED IN DETECTING CHANGES IN THE WATER QUALITY OF RIVERS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, OPERATIONS DIVISION, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW004731

PUBLICATION DATE: 79

TITLE: THE BASICS OF OIL SPILL CLEANUP.

PERSONAL AUTHOR: FINGAS, MERVIN F., AND OTHERS

DESCRIPTOR: ACCIDENT PREVENTION; *ENVIRONMENT; *OIL POLLUTION; *OIL SPILLS; *POLLUTION; *SEPARATION METHODS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 155P. PRICE: $6.95

ABSTRACT: THIS MANUAL IS INTENDED AS A GENERAL INTRODUCTION TO OIL SPILL CLEANUP TECHNOLOGY AND EQUIPMENT. THE BOOK EXPLAINS WHAT HAPPENS TO OIL WHEN IT IS ACCIDENTALLY SPILLED IN WATER OR LAND AND THE SPECIFIC CLEANUP STRATEGIES WHICH ARE POSSIBLE UNDER VARYING ENVIRONMENTAL CONDITIONS. THIS MATERIAL IS DESIGNED TO PROVIDE BASIC INFORMATION TO THE PUBLIC AT LARGE AND TO THOSE PERSONS WHO MAY ACTUALLY HAVE TO DEAL WITH THE CLEANUP OF AN OIL SPILL. SPECIFIC TOPICS INCLUDE OILTYPES CHARACTERISTICS, OIL BEHAVIOUR IN THE ENVIRONMENT RESPONSE TO OIL SPILLS, CONTAINMENT, RECOVERY, SEPARATION AND DISPOSAL METHODS, TREATMENT OF SPILLED OIL, SHORELINE CLEANUP AND RESTORATION AND LAND SPILLS.

AVAILABILITY: CANADIAN GOVERNMENT PUBLISHING CENTRE, SUPPLY AND SERVICES, HULL, QUEBEC K1A 0S9 CANADA

IRIS ACCESSION NUMBER: EW004733

PUBLICATION DATE: 78

TITLE: CORROSION CONTROL BY DEPOSITION OF CACO3 FILMS.

PERSONAL AUTHOR: MERRILL, DOUGLAS T.; AND SANKS, ROBERT L.

DESCRIPTOR: CHEMISTRY; *CORROSION CONTROL; *CALCIUM CARBONATE; *DEPOSITION; *EQUIPMENT; *MAINTENANCE; *OPERATIONS (WATER); PUBLIC HEALTH; *WATER SUPPLY; *WATER DISTRIBUTION; WATER QUALITY

DESCRIPTIVE NOTE: 50P. PRICE: $8.00

ABSTRACT: THIS HANDBOOK CONTAINS PRACTICAL INSTRUCTIONS TO CONTROL CORROSION IN WATER DISTRIBUTION SYSTEMS. IT CONTAINS CHAPTERS ON THE CHEMISTRY OF CORROSION, SELECTING AND APPLYING CONDITIONING CHEMICALS AND SPECIAL PROBLEMS ASSOCIATED WITH PLANT OPERATIONS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION, 6666 WEST QUINCY AVENUE, DENVER, CO 80235

IRIS ACCESSION NUMBER: EW004734

PUBLICATION DATE: 77

TITLE: AUTOMATION AND INSTRUMENTATION.

DESCRIPTOR: *AUTOMATION; EQUIPMENT; *INSTRUMENTATION; *INSTRUCTIONAL MATERIALS; MEASUREMENT; *OPERATIONS (WATER); PUMPS; *WATER SUPPLY; *WATER TREATMENT; *WATER DISTRIBUTION; *WATER WORKS; *WATER UTILITIES

DESCRIPTIVE NOTE: 150P. PRICE: $14.00

ABSTRACT: THIS OPERATORS MANUAL IS WRITTEN PRIMARILY FOR THE OPERATOR OF ANY WATER UTILITY, LARGE OR SMALL, WHO WOULD NOT NECESSARILY HAVE A TECHNICAL BACKGROUND, BUT WOULD LIKELY BE SEARCHING FOR ELEMENTARY EXPLANATIONS AND GENERAL INFORMATION. THE MANUAL, THEREFORE, DOES NOT INDULGE IN THEORY OR DESIGN CONCEPTS, NOR DOES IT DUPLICATE COVERAGE OF READILY AVAILABLE SUBJECTS SUCH AS BASIC ELECTRICITY, MECHANICS, OR HYDRAULICS. IT IS INTENDED TO BE A GENERAL DISCUSSION OF EQUIPMENT, TERMS, AND EXPRESSIONS AN OPERATOR COULD ENCOUNTER WHEREVER AUTOMATION AND INSTRUMENTATION ARE FOUND.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION, 6666 WEST QUINCY AVENUE, DENVER, CO 80235

IRIS ACCESSION NUMBER: EW004735

PUBLICATION DATE: 76

TITLE: DESIGN OF WATER AND WASTEWATER SYSTEMS.

PERSONAL AUTHOR: FLACK, ERNEST J.

DESCRIPTOR: *DESIGN; *ENVIRONMENTAL IMPACT; *FACILITIES; PLANNING; RESORTS; SEWAGE; URBAN AREAS; *WATER DISTRIBUTION; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 150P. PRICE: $4.00

ABSTRACT: THIS HANDBOOK DEALS WITH DESIGN CRITERIA AND PARAMETERS FOR WATER AND WASTEWATER SYSTEMS IN RAPID GROWTH AREAS AND RESORTS. THE TOPICS COVERED INCLUDE ENVIRONMENTAL IMPACTS OF NEW WATER AND SEWAGE FACILITIES, DESIGN PARAMETERS, SEWAGE COLLECTION AND WATER DISTRIBUTION, WATER TREATMENT AND WASTEWATER TREATMENT.

AVAILABILITY: COLORADO STATE UNIVERSITY, BULLETIN ROOM, FT. COLLINS, CO 80523

IRIS ACCESSION NUMBER: EW004740

PUBLICATION DATE: MAR 79

TITLE: LOCATION KEY FOR BEST MANAGEMENT PRACTICES-SILVICULTURE. AFRI RESEARCH REPORT NUMBER 39.

PERSONAL AUTHOR: MCCLIMANS, RICHARD J.

DESCRIPTOR: *BEST MANAGEMENT PRACTICES; *FORESTRY; *NONPOINT SOURCE POLLUTION; *SILVICULTURE; *SURFACE RUNOFF; *WATER QUALITY; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 13P. PRICE: FREE OF CHARGE

ABSTRACT: RESEARCH HAS SHOWN THAT WATER QUALITY PROBLEMS CAN OCCUR WHEN CERTAIN FORESTRY ACTIVITIES TAKE PLACE UNDER CRITICAL CONDITIONS AND LOCATIONS, ESPECIALLY ALONG THE SMALLER HEADWATER STREAMS AND TRIBUTARIES. THIS REPORT IS INTENDED AS A GUIDE TO THE IDENTIFICATION OF THOSE CRITICAL CONDITIONS OR LOCATIONS THAT NEED SPECIAL ALTERATION IN ORDER TO MINIMIZE ADVERSE IMPACTS ON SURFACE WATER. IN ORDER TO USE THIS GUIDE, THE NATURE AND SCOPE OF A JOB AND APPROXIMATIONS OF SLOPE, SOIL AND WATER SENSITIVITY NEED TO BE KNOWN.

AVAILABILITY: STATE UNIVERSITY OF NEW YORK, COLLEGE OF ENVIRONMENTAL SCIENCE AND FORESTRY, SYRACUSE, NY 13210

IRIS ACCESSION NUMBER: EW004741

PUBLICATION DATE: 78

TITLE: NOTES ON WATER RESEARCH: TESTS FOR ASSESSING THE OXYGEN DEMAND OF EFFLUENTS.

DESCRIPTOR: ANALYTICAL TECHNIQUES; *EFFLUENTS; *LABORATORY PROCEDURES; *MONITORING; *OPERATIONS (WASTEWATER); OXYGEN; *OXYGEN DEMAND; *RESEARCH; *SAMPLING; *WASTEWATER; *WATER POLLUTION; *WATER RESOURCES

DESCRIPTIVE NOTE: 4P. PRICE: $1.00

ABSTRACT: EVALUATED ARE THE RESULTS OBTAINED BY APPLYING FIVE DIFFERENT POLLUTION MEASURES TO THE SAME WATER SAMPLES. THE TESTS WERE PERMANGANATE VALUE, BIOCHEMICAL OXYGEN DEMAND CHEMICAL OXYGEN DEMAND, TOTAL OXYGEN DEMAND, AND TOTAL ORGANIC CARBON. THE RESULTS OBTAINED FOR EACH TEST WERE DIFFERENT ALTHOUGH THEY WERE RELATED. THE PURPOSE OF THIS PAPER IS TO OUTLINE THE REASONS FOR THESE DIFFERENCES SO

THAT THE MOST APPROPRIATE TEST MAY BE SELECTED FOR ANY GIVEN APPLICATION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW004742

PUBLICATION DATE: JUN 78

TITLE: APPLICATIONS OF MASS SPECTROMETRY IN POLLUTION CONTROL.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; GAS CHROMATOGRAPHY; *LABORATORY TECHNIQUES; *MASS SPECTROMETRY; ORGANIC COMPOUNDS; *POLLUTION CONTROL; PUBLIC HEALTH; VOLATILE COMPOUNDS

DESCRIPTIVE NOTE: 4P. PRICE: $1.00

ABSTRACT: THIS IS A DESCRIPTION OF THE ANALYTICAL TECHNIQUE USED BY THE WATER RESEARCH CENTER TO IDENTIFY VOLATILE COMPONENTS OF ORGANIC COMPOUND MIXTURES. GAS CHROMATOGRAPHY IS COUPLED WITH MASS SPECTROMETRY AND DATA PROCESSING IS THE IDENTIFICATION AND QUANTIFICATION PROCESS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW004743

PUBLICATION DATE: 79

TITLE: PROCEDURES AND TEST EQUIPMENT FOR WATER/WASTEWATER ANALYSES.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; BIOLOGICAL ANALYSIS; CHEMICAL ANALYSIS; *EQUIPMENT; *LABORATORY TECHNIQUES; METALS; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER); *WATER ANALYSES; *WASTEWATER ANALYSES

DESCRIPTIVE NOTE: 130P. PRICE: $6.50

ABSTRACT: THIS MANUAL HAS BEEN DESIGNED AS A USEFUL, ABRIDGED SOURCE FOR PROCEDURES OF THE 80 TESTS THAT FEDERAL AND LOCAL GOVERNMENTS REQUIRE OF FACILITIES SEEKING PERMITS TO DISCHARGE WASTE MATTER INTO NATURAL BODIES OF WATER.

AVAILABILITY: FISHER SCIENTIFIC COMPANY, 5481 CREEK ROAD, CINCINNATI, OH 45242

IRIS ACCESSION NUMBER: EW004772

PUBLICATION DATE: 79

TITLE: WASTEWATER TREATMENT PLANT O&M. A NATIONAL ISSUE.

DESCRIPTOR: BACTERIAL SUPPLEMENTATION; *BIOAUGMENTATION; FACILITIES; MAINTENANCE; MICROORGANISIMS; *OPERATIONS (WASTEWATER); *SYMPOSIA PROCEEDINGS; SECONDARY TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 12P. FREE OF CHARGE

ABSTRACT: THIS PAPER DEALS WITH THE PROCESS OF BIOAUGMENTATION. THE VALUE OF BACTERIAL SUPPLEMENTATION IS EXAMINED, ALTHOUGH THE PROBLEMS STEMMING FROM MICROBIAL UNPREDICTABILITY ARE STRESSED.

AVAILABILITY: FLOW LABORATORIES, INC., 1601 WEST ORANGEWOOD AVENUE, ORANGE, CA 92668

IRIS ACCESSION NUMBER: EW004773

PUBLICATION DATE: FEB 79

TITLE: BACTERIAL SUPPLEMENTATION: WHAT IT CAN AND CANNOT DO.

PERSONAL AUTHOR: GRUBBS, R. B.

DESCRIPTOR: ACTIVATED SLUDGE; BACTERIAL SUPPLEMENTATION; *BACTERIOLOGY; *BIOAUGMENTATION; EFFLUENTS; *FACILITIES; LAGOON SYSTEMS; *OPERATIONS (WASTEWATER); *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 12P. FREE OF CHARGE

ABSTRACT: THIS PAPER DEALS WITH THE SUBJECT OF BIOAUGMENTATION AT WASTEWATER TREATMENT PLANTS. INFORMATION IS PROVIDED ON THE GENERAL BACKGROUND OF BIOAUGMENTATION, AS WELL AS THE CURRENT UNDERSTANDING OF THE MECHANISMS OF SUCCESSFUL PROGRAMS.

AVAILABILITY: FLOW LABORATORIES, INC., 1601 WEST ORANGEWOOD AVENUE, ORANGE, CA 92668

IRIS ACCESSION NUMBER: EW004774

PUBLICATION DATE: 76

TITLE: BIOLOGICAL CONTROL OF WATER POLLUTION.

PERSONAL AUTHOR: EDITORS: TOURBIER, JOACHIM; PIERSON, ROBERT W.

DESCRIPTOR: *BIOLOGICAL CONTROL; *BACTERIOLOGY; *GREASE; MUNICIPAL SEWAGE; *MAINTENANCE; POLLUTION; *SEWERS; *WATER POLLUTION CONTROL; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 10P. FREE OF CHARGE

ABSTRACT: THIS STUDY EXAMINES THE PROBLEM OF SEWER LINES BLOCKED BY GREASE IN RESIDENTIAL AREAS. THE TRADITIONAL TECHNIQUE OF MECHANICALLY CLEANSING THE PIPES IS COMPARED TO THE INNOVATIVE APPROACH OF CLEANSING BY USING BACTERIAL CULTURES. THE STUDY CONCLUDES THAT CLEANING OF SEWERS BY GREASE CONSUMING BACTERIA REPRESENTS A VIABLE AND IN SOME

CASES ECONOMICAL ALTERNATIVE TO TRADITIONAL MECHANICAL METHODS OF CLEANING SEWERS.

AVAILABILITY: FLOW LABORATORIES, INC., 1601 WEST ORANGEWOOD, ORANGE, CA 92668

IRIS ACCESSION NUMBER: EW004775

PUBLICATION DATE: MAR 77

TITLE: CONTROL OF NUISANCE ODORS FROM PONDS BY THE USE OF BACTERIA CULTURES.

PERSONAL AUTHOR: JENSEN, RANDOLPH A.

DESCRIPTOR: AERATION; *BIOLOGICAL CONTROL; *BACTERIOLOGY; *HOLDING PONDS; *ODORS; *POLLUTION CONTROL; *PONDS; *STAGNANT WATER; *WATER POLLUTION

DESCRIPTIVE NOTE: 6P. FREE OF CHARGE

ABSTRACT: THE INFORMATION IN THIS PAPER IS DIRECTED TO THOSE INDIVIDUALS CONCERNED WITH THE MAINTENANCE OF ODOR CONTROL IN HOLDING PONDS OR OTHER BODIES OF RELATIVELY STAGNANT WATER. A FULL-SCALE COMPARISON OF ODOR CONTROL METHODS WAS MADE BETWEEN AERATION WITH COMPRESSED AIR OXIDATION WITH HYDROGEN PEROXIDE, DESTRUCTION OF THE ODOR CAUSING BACTERIA WITH FORMALDEHYDE AND OVERRIDING OF THE ODOR CAUSING BACTERIA WITH DESIRABLE BACTERIA STRAINS. THE LATTER PROVED TO BE THE METHOD EVENTUALLY ADOPTED TO HANDLE THE ODOR PROBLEM.

AVAILABILITY: FLOW LABORATORIES, INC., 1601 WEST ORANGEWOOD, ORANGE, CA 92668

IRIS ACCESSION NUMBER: EW004776

PUBLICATION DATE: MAY 71

TITLE: USE OF BACTERIAL CULTURES TO CONTROL OILY WASTEWATERS FROM A BULK OIL HANDLING TERMINAL.

PERSONAL AUTHOR: CASWELL, C. A.

DESCRIPTOR: *BIOLOGICAL CONTROL; *BACTERIOLOGY; GREASES; *INDUSTRIAL WASTEWATER: *OIL; *WATER POLLUTION CONTROL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 13P. FREE OF CHARGE

ABSTRACT: THIS PAPER DISCUSSES THE DESIGN AND OPERATION OF A BIOLOGIC TREATMENT SYSTEM TO CONTROL AN OILY WASTEWATER EFFLUENT FROM A BULK OIL HANDLING TERMINAL. THE RATIONALE FOR THE DESIGN, THE BASIC DESIGN PARAMETERS, AND THE SYSTEMS OPERATIONAL HISTORY ARE DISCUSSED. THE USE OF COMMERCIALLY PREPARED DRIED BACTERIAL CULTURES TO ESTABLISH AN EFFECTIVE BIOMASS FOR THE REMOVAL OF OILS AND GREASES, AND TO IMPROVE BIOLOGICAL OXYGEN DEMAND IS SUMMARIZED.

AVAILABILITY: FLOW LABORATORIES, INC., 1601 WEST ORANGEWOOD, ORANGE, CA 92668

IRIS ACCESSION NUMBER: EW004793

PUBLICATION DATE: 78

TITLE: RESIDENTIAL EROSION AND SEDIMENT CONTROL OBJECTIVES, PRINCIPLES AND DESIGN CONSIDERATIONS.

DESCRIPTOR: *COSTS; *DESIGN CONSIDERATIONS; *EROSION CONTROL; LEGAL IMPLICATIONS; *MANAGEMENT; *PLANNING; *SEDIMENT CONTROL; SOILS; STORMWATER; URBAN LAND; *WATER EROSION; *WIND EROSION; *WATER EROSION CONTROL; *WIND EROSION CONTROL

DESCRIPTIVE NOTE: 63P. PRICE: $7.50

ABSTRACT: THIS REPORT EXAMINES THE PROBLEM OF EROSION AND SEDIMENT CONTROL. CAREFUL CONSIDERATION IS GIVEN TO DESIGN IN PROBLEM AREAS, RISKS AND COSTS ARE EVALUATED, THE RELATIONSHIPS BETWEEN CONTROL AND MANAGEMENT ARE ANALYZED, THE NATURE OF THE PROCESSES ARE EXAMINED AND FACTORS INFLUENCING EROSION ARE DISCUSSED. WATER EROSION, WIND EROSION AND SEDIMENT CONTROL METHODS ARE DETAILED, AND THE LEGAL IMPLICATIONS ARE INCLUDED.

AVAILABILITY: AMERICAN SOCIETY OF CIVIL ENGINEERS, 345 EAST 47TH STREET, NEW YORK, NEW YORK 10017

IRIS ACCESSION NUMBER: EW004794

PUBLICATION DATE: JUN 75

TITLE: WATER QUALITY AS AN APPROACH TO MANAGING RECREATIONAL USE AND DEVELOPMENT ON A MOUNTAIN WATERSHED.

DESCRIPTOR: *CONTAMINATION; *LAND USE; *MANAGEMENT; *RECREATION AREAS; *SAMPLING; *VISITORS; *WATER QUALITY; *WATERSHEDS

DESCRIPTIVE NOTE: 84P. PRICE: $2.50

ABSTRACT: THE SOUTH FORK OF THE OGDEN RIVER, ONE OF SEVERAL HEAVILY USED MOUNTAIN WATERSHEDS ALONG UTAHS WASATCH FRONT, WAS STUDIED BETWEEN FEBRUARY 1 AND NOVEMBER 1, 1974, TO DETERMINE THE EFFECTS OF RECREATION ON WATER QUALITY. ALTHOUGH THE GREATEST IMPACTS ON WATER QUALITY OCCURRED DURING SPRING RUNOFF, IT WAS FOUND THAT RECREATIONAL USE HAD A DEFINITE EFFECT ON WATER QUALITY. BACTERIOLOGICAL PARAMETERS WERE FOUND TO BE THE MOST SENSITIVE INDICATORS OF CONTAMINATION. DIFFERENCES BETWEEN HEAVY WEEKEND AND LIGHT WEEKDAY RECREATIONAL USE WERE REFLECTED BY DIFFERENCES IN BACTERIOLOGICAL COUNTS. ALSO, IT APPEARS THAT CHANGES IN BACTERIAL WATER QUALITY WERE MORE CLOSELY CORRELATED WITH HIGH INTENSITY, SHORT DURATION USE RATHER THAN WITH THE OVERALL NUMBER OF VISITOR DAYS USE RECEIVED AT A RECREATIONAL SITE. THE RESULTS OF THIS STUDY INDICATE THAT IMPROVEMENTS ARE NEEDED AT SEVERAL RECREATIONAL SITES. STUDIES TO INVESTIGATE THE IMPROVEMENT OF RECREATIONAL FACILITIES ALONG THE SOUTH FORK ARE RECOMMENDED.

AVAILABILITY: UTAH STATE UNIVERSITY, UTAH WATER RESEARCH LABORATORY, COLLEGE OF ENGINEERING, LOGAN, UTAH 84322

INSTITUTION NAME: UTAH WATER RESEARCH LABORATORY.

IRIS ACCESSION NUMBER: EW004803

PUBLICATION DATE: 79

TITLE: A WORKFORCE AND TRAINING PROFILE FOR SOLID WASTE MANAGEMENT AND RESOURCE RECOVERY.

DESCRIPTOR: ENVIRONMENTAL ENGINEERING; FEDERAL GOVERNMENT; FORECASTING; *LABOR FORCE; *MANPOWER NEEDS; *MANAGEMENT; POLLUTION CONTROL; *PLANNING; RECYCLING; *RESOURCE RECOVERY; *SOLID WASTES; STATE PLANNING; *TRAINING

DESCRIPTIVE NOTE: 152P. PRICE: $11.00

ABSTRACT: THIS REPORT IS DIVIDED INTO THE FOLLOWING TOPICS: (1) A WORKFORCE PROFILE AND ANALYSIS SECTION STUDYING THE WORKFORCE NEEDS OF PUBLIC AND PRIVATE AGENCIES INVOLVED IN SOLID WASTE MANAGEMENT AND RECOVERY, (2) A SECTION ANALYZING WHAT ARE CONSIDERED BY SOURCES IN THE FIELD TO BE THE PRINCIPAL BLOCKAGES TO INITIAL EMPLOYMENT AND CAREER ADVANCEMENT IN SOLID WASTE MANAGEMENT, AND (3) AN ANALYSIS OF THE U.S. ENVIRONMENTAL PROTECTION AGENCY'S RESPONSIBILITIES FOR WORKFORCE DEVELOPMENT AND TRAINING ACTIVITIES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, OPERATIONS DIVISION, SPRINGFIELD, VA 22161

INSTITUTION NAME: NATIONAL FIELD RESEARCH CENTER.

IRIS ACCESSION NUMBER: EW004804

PUBLICATION DATE: 75

TITLE: AMBIENT WATER QUALITY CRITERIA: ARSENIC.

DESCRIPTOR: AQUATIC LIFE; *ARSENIC; *AMBIENT WATER QUALITY CRITERIA; CARCINOGENICITY; HUMAN HEALTH; PUBLIC HEALTH; *REGULATIONS; *STANDARDS; *TOXICOLOGY; *TOXIC SUBSTANCES; *WATER QUALITY

DESCRIPTIVE NOTE: 189P. PRICE: $10.00

ABSTRACT: PRESENTED ARE THE AMBIENT WATER QUALITY CRITERIA FOR ARSENIC AQUATIC LIFE AND HUMAN HEALTH. EVALUATED ARE ACUTE AND CHRONIC TOXICITY FOR FRESHWATER AND SALTWATER ORGANISMS. ANALYZED ARE HUMAN AND OTHER MAMMAL EXPOSURE TO, INGESTION OF, INHALATION OF, AND DERMAL ABSORPTION OF ARSENIC. EXAMINED ARE RESEARCH ON THE CHEMICAL PHARMOKINETICS (ABSORPTION, DISTRIBUTION, METABOLISM, EXCRETION) AND ITS EFFECTS (SYNERGISM, TERATOGENICITY MUTAGENICITY, CARCINOGENICITY, ACUTE, SUB-ACUTE AND CHRONIC TOXICITY). REVIEWS EXISTING GUIDELINES AND STANDARDS, CURRENT EXPOSURE LEVELS AND SPECIAL RISK GROUPS TO FORMULATE THE AMBIENT WATER QUALITY CRITERIA.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, OPERATIONS DIVISION, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW004805

PUBLICATION DATE: 75

TITLE: AMBIENT WATER QUALITY CRITERIA: BENZENE.

DESCRIPTOR: *AMBIENT WATER QUALITY CRITERIA; *BENZENE; CHEMISTRY; CARCINOGENICITY; HUMAN HEALTH; MUTAGENICITY; PUBLIC HEALTH; *REGULATIONS; *TOXICOLOGY; *TOXIC SUBSTANCES; *WATER QUALITY

DESCRIPTIVE NOTE: 150P. PRICE: $8.00

ABSTRACT: PRESENTED ARE THE WATER QUALITY CRITERIA FOR BENZENE FOR AQUATIC LIFE AND HUMAN HEALTH, USING AVAILABLE INFORMATION AND CURRENT RESEARCH DATA. EVALUATES ACUTE AND CHRONIC TOXICITY FOR FRESHWATER AND SALTWATER ORGANISMS. ANALYZES HUMAN AND OTHER MAMMALS EXPOSURE TO, INGESTION OF INHALATION OF AND DERMAL ABSORPTION OF BENZENE. EXAMINES RESEARCH ON THE CHEMICALS PHARMOKINETICS, (ABSORPTION, DISTRIBUTION, METABOLISM, EXCRETION), AND ITS EFFECTS, (SYNERGISM, TERATOGENICITY, MUTAGENICITY, CARCINOGENICITY, ACUTE, SUB-ACUTE AND CHRONIC TOXICITY). REVIEWS EXISTING GUIDELINES AND STANDARDS, CURRENT EXPOSURE LEVELS AND SPECIAL RISK GROUPS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, OPERATIONS DIVISION, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW004806

PUBLICATION DATE: DEC 75

TITLE: SLUDGE PROCESSING: TRANSPORTATION AND DISPOSAL/RESOURCE RECOVERY: A PLANNING PERSPECTIVE.

PERSONAL AUTHOR: NEPTUNE, DEAN, AND OTHERS

DESCRIPTOR: MUNICIPALITIES; *PLANNING; *RESOURCE RECOVERY; *SLUDGE; *SLUDGE DISPOSAL; *SLUDGE TRANSPORTATION; SOLID WASTES; WATER POLLUTION; *WASTEWATER TREATMENT; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 189P. PRICE: $13.00

ABSTRACT: A METHODOLOGY WAS DEVELOPED IN THIS REPORT FOR USE IN THE EVALUATION OF ALTERNATIVES FOR THE ULTIMATE DISPOSAL OF RESIDUAL WASTES GENERATED IN MUNICIPAL WASTEWATER TREATMENT PLANTS. THIS METHODOLOGY CONSIDERED TECHNICAL, ECONOMIC, SOCIAL, AND INSTITUTIONAL FACTORS PERTINENT TO A THOROUGH REVIEW OF ALTERNATIVES. RESIDUAL WASTES GENERATED IN MUNICIPAL WASTEWATER TREATMENT PLANTS WERE CHARACTERIZED. HANDLING AND TREATMENT PROCESSES FOR THE RESIDUAL WASTES ARE DISCUSSED AND EVALUATED IN LIGHT OF QUALITATIVE AND QUANTITATIVE CHARGES TO THE RESIDUAL WASTES. LIQUID, GASEOUS, AND SOLID SIDESTREAMS PRODUCED IN RESIDUAL WASTE TREATMENT WERE EVALUATED AND RAIL, PIPELINE, BARGE, AND TRUCK TRANSPORT OF RESIDUAL WASTES WERE ANALYZED. ENVIRONMENTAL, OPERATIONAL AND INSTITUTIONAL CONSTRANTS TO THE USE OF OCEAN DISPOSAL, LAGOONS, SANITARY LANDFILLS, SLUDGE RECYCLING, AND LAND RECLAMATION WERE PRESENTED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, OPERATIONS DIVISION, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW004810

PUBLICATION DATE: JAN 77

TITLE: PREVENTIVE APPROACHES TO STORMWATER MANAGEMENT.

PERSONAL AUTHOR: WILLISON, JOHN; AND OTHERS

DESCRIPTOR: *BEST MANAGEMENT PRACTICES; *ECONOMICS; EROSION; HYDROLOGY; *MANAGEMENT; REGULATIONS; *STORMWATER; SEDIMENT; *URBAN RUNOFF; WATER QUALITY

DESCRIPTIVE NOTE: 207P. PRICE: $13.00

ABSTRACT: THIS DOCUMENT WAS PREPARED FOR USE BY LOCAL AGENCY ADMINISTRATORS, AND OTHERS WHO MAY BE INVOLVED IN PROGRAMS TO ABATE POLLUTION FROM URBAN RUNOFF. THIS REPORT DISCUSSES THE CONCEPT OF SOURCE CONTROL (BEST MANAGEMENT PRACTICE) AND LISTS MANY APPROPRIATE TECHNIQUES. THE PROBLEMS ASSOCIATED WITH IMPLEMENTING THESE PRACTICES, LEGAL, FINANCIAL, AND INSTITUTIONAL ARE ALSO DISCUSSED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, OPERATIONS DIVISION, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW004811

PUBLICATION DATE: APR 78

TITLE: MANAGEMENT OF ENGINEERING OF CONTROL SYSTEMS FOR WATER PIPELINES.

DESCRIPTOR: *CONTROL SYSTEMS; *DESIGN; *ENGINEERING; *MANAGEMENT; MANUFACTURING; MAINTENANCE; *OPERATIONS (WATER); PLANNING; *PIPES; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: 180P. PRICE: $12.00

ABSTRACT: THIS REPORT IS THE CULMINATION OF THE WORK OF THE TASK COMMITTEE ON PROCEDURES FOR MANAGEMENT OF CONTROL SYSTEMS ENGINEERING FOR WATER PIPELINES. IT PRESENTS PROCEDURAL GUIDELINES FOR MANAGING THE CONCEPTION, DESIGN, MANUFACTURE, INSTALLATION, START-UP, OPERATION AND MAINTENANCE OF CONTROL SYSTEMS FOR WATER PIPELINES.

AVAILABILITY: AMERICAN SOCIETY OF CIVIL ENGINEERS, 345 EAST 47TH STREET, NEW YORK, NY 10017

IRIS ACCESSION NUMBER: EW004813

PUBLICATION DATE: JUL 76

TITLE: MODELING NONPOINT POLLUTION FROM THE LAND SURFACE.

PERSONAL AUTHOR: DONIGIAN, ANTHONY S.; CRAWFORD, NORMAN H.

DESCRIPTOR: EROSION; *HYDROLOGY; *LAND USE; *MODELS; *NONPOINT SOURCE POLLUTION; *PLANNING; *POLLUTION INDICATORS; *SURFACE RUNOFF; *SIMULATION; *URBAN AREAS; WATER QUALITY; *WATER POLLUTION

DESCRIPTIVE NOTE: 280P. PRICE: $16.00

ABSTRACT: DEVELOPMENT AND INITIAL TESTING OF A MATHEMATICAL MODEL TO CONTINUOUSLY SIMULATE POLLUTANT CONTRIBUTIONS TO STREAM CHANNELS FROM NONPOINT SOURCES IS PRESENTED. THE NONPOINT SOURCE POLLUTANT LOADING (NPS) MODEL IS COMPRISED OF SUBPROGRAMS TO REPRESENT THE HYDOLOGIC RESPONSE OF A WATERSHED, INCLUDING SNOW ACCUMULATION AND MELT, AND THE PROCESSES OF POLLUTANT ACCUMULATION, GENERATION, AND WASHOFF FROM THE LAND SURFACE. THE SIMULATION OF NONPOINT POLLUTANTS FROM BOTH PERVIOUS AND IMPERVIOUS AREAS IS BASED ON SEDIMENT AS A POLLUTANT INDICATOR. THE CALCULATED SEDIMENT WASHOFF IS MULTIPLIED BY USER-SPECIFIED POTENCY FACTORS THAT INDICATE THE POLLUTANT STRENGTH OF THE SEDIMENT FOR EACH POLLUTANT SIMULATED. INITIAL TESTING OF THE NPS MODEL WAS PERFORMED ON THREE URBAN WATERSHEDS IN DURHAM, NORTH CAROLINA; MADISON, WISCONSIN; AND SEATTLE, WASHINGTON. THE HYDROLOGIC SIMULATION RESULTS WERE GOOD WHILE THE SIMULATION OF NONPOINT POLLUTANTS WAS FAIR TO GOOD. SEDIMENT, BOD, AND S.S. WERE THE MAJOR POLLUTANTS INVESTIGATED. A DETAILED USER MANUAL IS PROVIDED TO ASSIST POTENTIAL USERS. PARAMETER DEFINITIONS AND GUIDELINES FOR PARAMETER EVALUATION AND CALIBRATION ARE INCLUDED. POSSIBLE USES OF THE NPS MODEL FOR EVALUATION OF PROBLEMS ARE DISCUSSED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, OPERATIONS DIVISION, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW004818

PUBLICATION DATE: JAN 76

TITLE: PROCEEDINGS URBAN STORMWATER MANAGEMENT SEMINARS.

PERSONAL AUTHOR: ATHYDE, DENNIS N.

DESCRIPTOR: *BEST MANAGEMENT PRACTICES; ECONOMICS; LEGISLATION; LAWS; *MANAGEMENT; POLLUTION ABATEMENT; REGULATIONS; *SURFACE RUNOFF; *STORMWATER; *SEMINAR PROCEEDINGS; *URBAN AREAS; *WATER POLLUTION; WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 456P. PRICE: $25.00

ABSTRACT: THIS PROJECT WAS DESIGNED TO PROVIDE INITIAL GUIDANCE FOR THE DEVELOPEMT OF WORK PLANS PURSUANT TO SECTION 208 OF PL92-500. THREE AREAS ARE DISCUSSED. THE FIRST IS PROBLEM ASSESSMENT FOR POLLUTION FROM URBAN STORM WATER RUNOFF. THE SECOND AREA COVERED DISCUSSES MEANS TO

CONTROL POLLUTION, AND THE THIRD AREA DEALS WITH THE LEGAL, INSTITUTIONAL, AND FINANCIAL ASPECTS OF CONTROLLING URBAN STORMWATER RUNOFF FOR POLLUTION ABATEMENT. THE REPORT OF THE TWO SEMINARS INCLUDES TRANSCRIBED TAPES OF QUESTION AND ANSWER PERIODS WHICH WERE HELD AFTER EACH OF THE THREE AREAS WERE DISCUSSED. INCLUDED IS A BIBLIOGRAPHY ON INSTITUTIONAL ARRANGEMENTS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, OPERATIONS DIVISION, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW004820

PUBLICATION DATE: 74

TITLE: WATER RESOURCES PROTECTION MEASURES IN LAND DEVELOPMENT - A HANDBOOK.

PERSONAL AUTHOR: TOURBIER, J.; WESTMACOTT, R.

DESCRIPTOR: *DESIGN; EROSION; *ENVIRONMENT; FLOODING; INFILTRATION; LAND USE; *LAND DEVELOPMENT; LEGAL ASPECTS; *PLANNING; *POLLUTION CONTROL; *SEDIMENTATION; *SEWAGE; *SURFACE RUNOFF; *URBAN AREA; WATER RESOURCES; WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 237P. PRICE: $15.00

ABSTRACT: THIS REPORT DESCRIBES MEASURES TO REDUCE WATER RESOURCE PROBLEMS THAT ARE ASSOCIATED WITH URBAN DEVELOPMENT. THESE PROBLEMS CONSIST OF INCREASED RUNOFF, DECREASED INFILTRATION, GREATER DEGREES OF EROSION AND SEDIMENTATION, FLOODING, RUNOFF POLLUTION, AND DISCHARGE OF SEWAGE EFFLUENT. ISSUES HAVE BEEN ANALYZED INDIVIDUALLY IN THE CHRISTINA RIVER BASIN IN DELAWARE AND WHERE POSSIBLE, QUANTIFIED. PROTECTION MEASURES ARE PRESENTED IN GROUPS WHICH ARE DIRECTLY RELATED TO SITE CHARACTERISTICS AND ALSO TO THE PROBLEMS LISTED ABOVE. THE APPLICATION, ADVANTAGES AND DISADVANTAGES, DESIGN CRITERIA AND OUTLINE SPECIFICATIONS, COST GUIDELINES AND MAINTENANCE, AND LEGAL IMPLEMENTATION OF EACH MEASURE ARE INDIVIDUALLY COVERED. LEGAL ASPECTS OF IMPLEMENTATION ON THE COUNTY, STATE AND REGIONAL LEVEL ARE ALSO MENTIONED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, OPERATIONS DIVISION, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW004878

PUBLICATION DATE: JUN 79

TITLE: PROGRESS IN WASTEWATER DISINFECTION TECHNOLOGY.

DESCRIPTOR: COST EFFECTIVENESS; COLIFORM BACTERIA; CHLORINE; CHLORINATION; CHLOROHYDROCARBONS; *DISINFECTION; *DECHLORINATION; LAGOONS; OZONE; RESEARCH; SYMPOSIUM PROCEEDINGS; ULTRAVIOLET RADIATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 286P. PRICE: $16.00

ABSTRACT: THIS SYMPOSIUM BROUGHT TOGETHER SCIENTISTS, CONSULTING ENGINEERS, MUNICIPAL DESIGN ENGINEERS, AND VARIOUS TECHNICAL, STATE AND LOCAL GOVERNMENT OFFICIALS TO LISTEN TO PRESENTATIONS ON THE LATEST DEVELOPMENTS IN THE FIELD OF WASTEWATER DISINFECTION AND TO ACTIVELY PARTICIPATE IN DISCUSSIONS ON THE DATA AND INTERPRETATIONS PRESENTED. PROGRESS IS BEING MADE IN THE FIELD OF WASTEWATER DISINFECTION, BUT MUCH MORE WORK IS NEEDED BEFORE A DESIGN MANUAL CAN BE COMPILED. IT APPEARS THAT SUBSTANTIAL SAVINGS IN CHLORINE USAGE IS POSSIBLE WITH A WELL DESIGNED, OPTIMIZED MIXING AND CONTRACTING SYSTEM. DECHLORINATION WITH SULFUR DIOXIDE IS COST EFFECTIVE, BUT NOT WITH ACTIVATED CARBON OR HOLDING LAGOONS. DISINFECTION OF WELL OXIDIZED, FILTERED SECONDARY EFFLUENT IS BEST ACHIEVED WITH A BUBBLE DIFFUSER CONTACTOR AND IS INDEPENDENT OF CONTACT TIME. TOTAL COSTS OF OZONE DISINFECTION APPEAR TO BE TWICE THE COST OF CHLORINE. ULTRAVIOLET LIGHT IS FINALLY BEING RECOGNIZED AS AN EXTREMELY EFFECTIVE ALTERNATIVE DISINFECTION PROCESS, WITH COSTS ULTIMATELY PROMISING TO BE COMPETITIVE WITH CHLORINE. CHLORINE DIOXIDE IS SOMEWHAT DISAPPOINTING COMPARED WITH CHLORINE ON BENCH-SCALE ANALYSIS, BUT PILOT TESTING SHOULD REVEAL THE TRUE EFFECTIVENESS. VERY INTERESTING PRELIMINARY RESULTS WERE PRESENTED ON NONVOLATILE ORGANIC, BY-PRODUCT FORMATION BY CHLORINE, OZONE, AND ULTRAVIOLET LIGHT.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, OPERATIONS DIVISION, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW004881

PUBLICATION DATE: MAR 79

TITLE: THE DISINFECTION OF DRINKING WATER.

DESCRIPTOR: BROMINE; CHLORINE DIOXIDE; CHLORINE; CHLORAMINES; *DISINFECTION; *DRINKING WATER; HYDROGEN PEROXIDE; IODINE; IONIZING RADIATION; OZONE; POTASSIUM PERMANGANATE; ULTRAVIOLET LIGHT; *WATER TREATMENT; *WATER SUPPLY

DESCRIPTIVE NOTE: 225P. PRICE: $14.00

ABSTRACT: THE CURRENT STATUS OF POSSIBLE METHODS FOR DISINFECTING DRINKING WATER ARE REVIEWED. THE SPECIFIC BIOCIDAL ACTIVITY OF EACH OF THE DISINFECTANTS IS CONSIDERED, AS WELL AS INFORMATION (OR LACK OF IT) ON THE PRACTICAL APPLICATION AND RELIABILITY OF THE METHODS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, OPERATIONS DIVISION, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW004886

PUBLICATION DATE: 79

TITLE: CHLORINATION SKILL TRAINING PACKAGE-WASTEWATER TREATMENT.

DESCRIPTOR: *AUTOINSTRUCTIONAL PROGRAMS; *CHLORINATION;

*CHLORINE; COURSE EVALUATION; DISINFECTION; EDUCATIONAL PROGRAMS; EQUIPMENT; FACILITIES; *HYPOCHLORINATION; INDEPENDENT STUDY; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WASTEWATER); PROGRAMMED INSTRUCTION; SAFETY; *WASTEWATER TREATMENT; *WORKBOOKS

DESCRIPTIVE NOTE: 375P. PRICE: $8.00

ABSTRACT: THIS PUBLICATION IS DESIGNED AS A SELF-INSTRUCTION HANDBOOK FOR WASTEWATER TREATMENT PLANT OPERATORS. THIS WORKBOOK CONTAINS 3 PARTS: A&B DESIGNED FOR OPERATIONS THAT HAVE A GAS CHLORINATION SYSTEM AND PART C DESIGNED FOR OPERATORS THAT WORK WITH HYPOCHLORINATION SYSTEMS. PART A CONTAINS INFORMATION ON THE USES, PROPERTIES AND HAZARDS OF CHLORINE, DOSAGE, RESIDUAL AND FEED RATE CALCULATIONS, AND IDENTIFICATION AND FUNCTION OF GAS CHLORINATION COMPONENTS. PART B CONTAINS A GUIDE FOR HANDS-ON TRAINING THAT SHOULD BE CONDUCTED IN A GAS CHLORINATION WORKSHOP. PART C CONTAINS MATERIAL ON HYPOCHLORINATION. EACH OF THE THREE PARTS CONTAIN INSTRUCTIONS, PREREQUISITES, OBJECTIVES, AND A NUMBER OF SELF-TESTS.

AVAILABILITY: WATER POLLUTION CONTROL FEDERATION, 2626 PENNSYLVANIA AVENUE, N.W. WASHINGTON, DC 20037

IRIS ACCESSION NUMBER: EW004887

PUBLICATION DATE: 79

TITLE: UTILIZATION OF MUNICIPAL SEWAGE EFFLUENT AND SLUDGE ON FOREST AND DISTURBED LAND.
PERSONAL AUTHOR: EDITORS: SOPPER, WILLIAM E.; KERR, SONJA N.

DESCRIPTOR: *ECOSYSTEMS; *FORESTRY; *LAND APPLICATION; *MUNICIPAL SEWAGE; MICROBIOLOGY; *PUBLIC HEALTH; REVEGETATION; *SEWAGE; *SLUDGE; *WASTEWATER; WATER QUALITY

DESCRIPTIVE NOTE: 537P. PRICE: $20.00

ABSTRACT: THESE PAPERS ARE THE PROCEEDINGS OF A SYMPOSIUM CONDUCTED BY THE SCHOOL OF FOREST RESOURCES AND THE INSTITUTE FOR RESEARCH ON LAND AND WATER RESOURCES AT THE PENNSYLVANIA STATE UNIVERSITY. THE PAPERS ARE DIVIDED INTO TWO SECTIONS, WASTEWATER AND SLUDGE APPLICATIONS IN FORESTS, AND DISTURBED LAND REVEGETATION. THE FIRST SECTION COVERS SUCH TOPICS AS WATER QUALITY AND RENOVATION, MICROBIOLOGICAL ASPECTS, VEGETATION RESPONSES, FOREST SOILS, ECOSYSTEM RESPONSES, PUBLIC HEALTH, AND SYSTEM DESIGN AND ECONOMICS. THE SECOND SECTION COVERS SLUDGE APPLICATION, MICROBIOLOGY AND PUBLIC HEALTH, DOMESTIC ANIMALS AND WILDLIFE, AND GUIDELINES AND REGULATIONS.

AVAILABILITY: THE PENN STATE PRESS, 215 WAGNER BUILDING, UNIVERSITY PARK, PA 16802

IRIS ACCESSION NUMBER: EW004888

PUBLICATION DATE: SEP 79

TITLE: OXIDATION TECHNIQUES IN DRINKING WATER TREATMENT.

PERSONAL AUTHOR: KARLSRUHE, F. R. G.

DESCRIPTOR: ANALYTICAL TECHNIQUES; *CHLORINATION; *CONFERENCE REPORTS; *DISINFECTION; *DRINKING WATER; HEALTH RISKS; ORGANIC CHEMISTRY; OXIDATION TECHNIQUES; *OZONE; *OPERATIONS (WATER); *WATER SUPPLY; *WATER ANALYSIS; WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 750P. PRICE: $35.00

ABSTRACT: THIS DOCUMENT CONTAINS THE COMPLETE MANUSCRIPTS OF ALL LECTURES GIVEN BY INTERNATIONAL SCIENTISTS AND ENGINEERS AT A 1978 CONFERENCE ON THE TREATMENT OF DRINKING WATER. MAJOR AREAS OF DISCUSSION INCLUDE: PRACTICAL USE OF DRINKING WATER CHLORINATION, UNWANTED BY-PRODUCTS OF CHLORINATION, OZONE TREATMENT AND REACTIONS, OZONE, PRODUCTION, CONTACTORS, DEMAND, THE USE OF OZONE IN DRINKING WATER TREATMENT, APPLICATION OF OTHER OXIDATION PROCESSES, BIOLOGICAL PROCESSES IN DRINKING WATER TREATMENT, AND COMBINATION OF CHEMICAL AND BIOLOGICAL OXIDATION PROCESSES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, OPERATIONS DIVISION, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW004889
PUBLICATION DATE: AUG 79

TITLE: COSTS AND WATER QUALITY IMPACTS OF REDUCING AGRICULTURAL NONPOINT SOURCE POLLUTION: AN ANALYSIS METHODOLOGY.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *AGRICULTURAL ECONOMICS; *AGRICULTURAL POLLUTION; *ECONOMIC IMPACTS; *MODELS; *NONPOINT SOURCE POLLUTION; POLICY; *POLLUTION CONTROL; *REGIONAL PLANNING; SOCIAL IMPACTS; *WATER QUALITY; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 350P. PRICE: $19.00

ABSTRACT: THIS STUDY ADDRESSES THE PROBLEM OF ANALYZING THE EFFECTS OF AGRICULTURAL NONPOINT SOURCE POLLUTION. A METHODOLOGY FOR REGIONAL-LEVEL PLANNING IS PRESENTED THAT, WITH FURTHER REFINEMENT, COULD PROVE OF SIGNIFICANT VALUE FOR BROAD ANALYSIS OF LARGE NUMBERS OF POLICY ALTERNATIVES, INCLUDING TEST MANAGEMENT PRACTICES. THE ANALYTICAL METHOD DEVELOPED ALLOWS THE SIMULTANEOUS EXAMINATION OF THE WATER QUALITY IMPACTS OF SELECTED AGRICULTURAL PRACTICES AND THE ECONOMIC EFFECTS THAT ALTERNATIVE PRACTICES AND NONPOINT SOURCE POLLUTION CONTROL POLICIES HAVE ON THE FARMER. THE PROPOSED METHODOLOGY INCLUDES A FARM MODEL, A WATER QUALITY MODEL, AND A QUALITATIVE APPROACH FOR THE ASSESSMENT OF THE SOCIAL AND ECONOMIC IMPACTS OF WATER QUALITY CHANGES ON DOWNSTREAM USERS. IT MAY BE APPLIED TO EVALUATE GOVERNMENT NONPOINT SOURCE POLLUTION CONTROL POLICIES AND THE EFFECTS OF ALTERNATIVE AGRICULTURAL FUTURES. THE METHODOLOGIES FOR

THESE PURPOSES ARE EVALUATED THROUGH AN ILLUSTRATIVE EXAMPLE BASED ON DATA FROM THE BLACK CREEK WATERSHED IN NORTHEASTERN INDIANA AND A SYNTHESIZED DOWNSTREAM IMPOUNDMENT.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, OPERATIONS DIVISION, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW004890

PUBLICATION DATE: JUL 79

TITLE: RADIOMETRIC METHOD FOR THE DETERMINATION OF URANIUM IN WATER.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; CHEMICAL ANALYSIS; *LABORATORY PROCEDURES; *LABORATORY TESTING; MILLING; MINING; *MONITORING; NUCLEAR POWER PLANTS; *POLLUTION; *URANIUM; URANIUM ORES; *WATER ANALYSIS; *WATER QUALITY

DESCRIPTIVE NOTE: 50P. PRICE: $7.00

ABSTRACT: THE RESULTS OF A SINGLE LABORATORY EVALUATION AND AN INTERLABORATORY COLLABORATIVE STUDY OF A METHOD FOR DETERMINING URANIUM IN WATER ARE REPORTED. THE METHOD CONSISTS OF COPRECIPITATION OF URANIUM WITH FERROUS HYDROXIDE, A NITRIC-HYDROFLUORIC ACID DISSOLUTION IF THE SAMPLE CONTAINS SEDIMENT, SEPARATION OF THE URANIUM BY ANION EXCHANGE CHROMATOGRAPHY, AND ELECTRODEPOSITION, FOLLOWED BY ALPHA PULSE HEIGHT ANALYSIS. MEASURED URANIUM CONCENTRATIONS AGREED TO WITHIN 5% OF THE REFERENCE CONCENTRATIONS, WHILE TRACER RECOVERIES AVERAGED ABOUT 70%.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, OPERATIONS DIVISION, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW004893

PUBLICATION DATE: MAY 79

TITLE: DEVELOPMENT OF MEASUREMENT TECHNIQUES FOR FUGITIVE EMISSIONS FROM PROCESS AND EFFLUENT STREAMS.

DESCRIPTOR: AIR POLLUTION; COAL; COMBUSTION; DUST; *EFFLUENTS; ELECTRICAL POWER PLANTS; *FUGITIVE EMISSIONS; *INDUSTRIAL WASTES; *MEASUREMENT TECHNIQUES; MATHEMATICAL MODELING; *POLLUTION CONTROL; PETROLEUM; *STREAMS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 43P. PRICE: $6.00

ABSTRACT: THIS REPORT SUMMARIZES WORK COMPLETED IN A CONTINUING PROGRAM OF EVALUATION, DEVELOPMENT, TESTING, AND ADAPTATION OF EXISTING AND PROPOSED MEASUREMENT TECHNIQUES FOR AIR AND WATERBORNE INDUSTRIAL PROCESS FUGITIVE EMISSIONS. RESULTS OF FIVE MAJOR RESEARCH AND DEVELOPMENT TASKS ARE PRESENTED; (1) A MEASUREMENT AND MODELING PROGRAM FOR WATERBORNE EMISSIONS FROM COAL-FIRED UTILITY BOILERS; (2) A STUDY OF THE APPLICABILITY OF REMOTE SENSING METHODS TO THE MEASUREMENT OF AIRBORNE FUGITIVE EMISSIONS; (3) A SURVEY AND MEASUREMENT PROGRAM TO ASSESS THE ENVIRONMENTAL PROBLEMS CAUSED BY RUNOFF FROM INTEGRATED IRON AND STEEL MILLS; (4) THE DESIGN AND DEVELOPMENT OF A FUGITIVE ASSESSMENT SAMPLING TRAIN FOR PARTICULATE AND ORGANIC VAPOR EMISSIONS; AND (5) AN EVALUATION OF TECHNIQUES FOR THE DETERMINATION OF LARGEHOOD CAPTIVE EFFICIENCIES. SUMMARIES OF SERVICE WEAR TASKS RELATED TO FUGITIVE EMISSIONS MEASUREMENTS INCLUDE: METHODOLOGY DEVELOPMENTS FOR EMISSION MEASUREMENT PROGRAMS AT COKE QUENCHING TOWERS, COAL CLEANING PLANTS, IRON ORE, LOADING OPERATIONS, AND AN OPEN HEARTH SHOP'S ROOF MONITORS, AND REVIEWS OF PROPOSED SAMPLING PROGRAMS AND METHODS FOR FUGITIVE EMISSIONS FROM MINING OPERATIONS, PETROLEUM REFINERIES, AND COAL CLEANING OPERATIONS. ABSTRACTS OF THREE PAPERS ON FUGITIVE EMISSION TOPICS PRESENTED AT EPA SYMPOSIA ARE INCLUDED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, OPERATIONS DIVISION, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW004894

PUBLICATION DATE: JUN 79

TITLE: A STANDARD PROCEDURE FOR COST ANALYSIS OF POLLUTION CONTROL OPERATIONS. VOLUME II. APPENDICES.

DESCRIPTOR: *COST ANALYSIS; *COST ESTIMATES; ENGINEERING; *MEASURE OF MERIT; *OPERATING COSTS; *POLLUTION CONTROL; POLLUTION

DESCRIPTIVE NOTE: 115P. PRICE: $11.00

ABSTRACT: THIS MANUAL IS PART OF A USER GUIDE FOR A STANDARD PROCEDURE FOR THE ENGINEERING COST ANALYSIS OF POLLUTION ABATEMENT OPERATIONS AND PROCESSES. THE PROCEDURE APPLIES TO PROJECTS IN VARIOUS ECONOMIC SECTORS: PRIVATE, REGULATED, AND PUBLIC. THE MODELS ARE CONSISTENT WITH COST EVALUATION PRACTICES IN ENGINEERING ECONOMIC AND FINANCIAL ANALYSIS. THIS VOLUME CONTAINS 11 APPENDICES (PROVIDING DETAILED BACKGROUND MATERIAL) AND TWO COMPREHENSIVE EXAMPLES. APPENDIX SUBJECTS INCLUDE: CAPITAL INVESTMENT ESTIMATION, ANNUAL EXPENSE ESTIMATE, THE CASH FLOW CONCEPTS, DISCRETE AND CONTINUOUS INTEREST FACTORS, COST INDICES AND INFLATION FACTOR RATES OR RETURN AND INTEREST RATES, METHODS OF RELIABILITY ASSESSMENT, AND SENSITIVITY ANALYSIS. THE MEASURES OF MERIT APPENDIX CONSIDERS: RETURN ON INVESTMENT, INTERNAL RATE OF RETURN, PAYOUT TIME, EQUIVALENT ANNUAL COSTS, AND UNIT COSTS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, OPERATIONS DIVISION, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW004908

PUBLICATION DATE: JUN 79

TITLE: ASSESSMENT OF LAND TREATMENT TECHNOLOGY FOR TEXTILE MILL INDUSTRY.

PERSONAL AUTHOR: PAL, DHIRAJ; OVERCASH, MICHAEL R.

DESCRIPTOR: *DESIGN; ENVIRONMENTAL REGULATIONS; *GROUND WATER; *INDUSTRY; *INDUSTRIAL WASTES; *LAND TREATMENT; *LAND APPLICATION; *LAND USE; POLLUTION; *SOILS; *TEXTILE INDUSTRY; *WASTE DISPOSAL; *WASTE TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 32P. PRICE: $6.00

ABSTRACT: THE TEXTILE MILL INDUSTRY CONSISTING OF SIX SUBCATEGORIES OF MANUFACTURING MUST CONTINUALLY REVIEW THE OPTIONS FOR MEETING STATE AND FEDERAL ENVIORNMENTAL REGULATIONS. LAND TREATMENT IS BECOMING A METHOD OF CHOICE FOR AN INCREASING NUMBER OF MILLS. THIS REPORT EXAMINES LAND TREATMENT ON A FIRST-CUT BASIS. AVERAGE PLANT SIZES FOR EACH SIX SUBCATEGORIES ARE USED ALONG WITH REPRESENTATIVE WASTE AND SOIL CHARACTERISTICS. THESE RESULTS DO NOT REPRESENT DESIGN CRITERA BECAUSE OF THE HIGHLY CRITICAL NEED TO TEST THE WASTE AND SITE TO BE USED BEFORE SPECIFYING OR PERMITTING OF SUCH SYSTEMS. INSTEAD, THE RESULTS OF THIS REPORT SHOULD BE USED TO COMPARE THE LAND TREATMENT ALTERNATIVE TO CONVENTIONAL PROCESSES. ALTHOUGH NOT INCLUDED SPECIFICALLY, LAND TREATMENT CAN MEET THE HIGHEST LEVELS OF WASTE TREATMENT WHEN CORRECTLY DESIGNED; THUS COMPARISON AGAINST OTHER ALTERNATIVES SHOULD INCLUDE THE ADVANCED WASTEWATER TREATMENT REQUIREMENTS FOR MEETING PRESENT AND FUTURE REGULATIONS. A DESIGN PROCEDURE IS ALSO PRESENTED FOR LAND TREATMENT. THIS PROCEDURE DEMONSTRATES THE DETAILED LEVELS OF SOIL AND WASTE ANALYSIS REQUIRED TO DESIGN ANY LAND APPLICATION SYSTEM.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, OPERATIONS DIVISION, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW004911

PUBLICATION DATE: JUN 79

TITLE: PERFORMANCE EVALUATION OF THE MARTEK INSTRUMENTS, INC. MARK V DIGITAL WATER QUALITY ANALYZER SYSTEM.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *EQUIPMENT; *INSTRUMENTATION; *MONITORING; *PERFORMANCE EVALUATION; *WATER QUALITY

DESCRIPTIVE NOTE: 17P. PRICE: $5.00

ABSTRACT: TEST AND EVALUATION RESULTS ARE REPORTED FOR A GENERAL PURPOSE, PORTABLE WATER QUALITY SYSTEM DESIGNED TO MEASURE TEMPERATURE, CONDUCTIVITY, PH, AND DISSOLVED OXYGEN TO DEPTHS OF 30 METERS. THE SYSTEM DESCRIPTION, MANUFACTURER'S SPECIFICATION, AND PERFORMANCE RESULTS WITH ASSOCIATED FIGURES AND TABLES GIVING ACCURACY, PRECISION, STABILITY AND ENVIORNMENTAL EFFECTS ARE PROVIDED. A LIST OF REPLACED OR REPAIRED COMPONENTS AND SOME GENERAL COMMENTS ARE GIVEN.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, OPERATIONS DIVISION, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW004944

PUBLICATION DATE: 79

TITLE: THE TOXICOLOGY OF OZONE.

DESCRIPTOR: AGRICULTURE; *ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES; AIR POLLUTION; *BIOLOGICAL EFFECTS; *ENVIRONMENTAL INFLUENCES; FORESTRY; INDUSTRIAL HAZARDS; MICROBIOLOGY; *OZONE; PHYSIOLOGY; *TOXICOLOGY; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 85P. PRICE: $30.00

ABSTRACT: STUDIES ARE CITED THAT COVER THE TOXIC EFFECTS OF OZONE IN HUMANS, ANIMALS, AND PLANTS. ALTHOUGH MANY REPORTS CITE THE EFFECTS OF OZONE GENERATED AS A PHOTOCHEMICAL OXIDANT FROM AIR POLLUTION, OTHERS SIMPLY LOOK AT THE BASIC BIOLOGICAL EFFECTS OF OZONE WITHOUT DISCUSSING ITS SOURCE. THE TOPICS DESCRIBED INCLUDE OZONES EFFECTS ON FORESTS AND AGRICULTURAL CROPS, INDUSTRIAL EXPOSURE, MAXIMIUM EXPOSURE LEVELS, EFFECTS ON MICRO-ORGANISIMS, AND PHYSIOLOGICAL EFFECTS. (THIS UPDATED BIBLIOGRAPHY CONTAINS 126 ABSTRACTS, 41 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION).

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, OPERATIONS DIVISION, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW004946

PUBLICATION DATE: MAY 79
TITLE: BASIC ANALYTICAL MODEL FOR ENVIRONMENTAL IMPACT ASSESSMENT OF SURFACE WATER RESOURCES - DOSAG USER MANUAL.

PERSONAL AUTHOR: RIGGINS, ROBERT; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUIES; *DISSOLVED OXYGEN; *ENVIRONMENTAL IMPACT ASSESSMENT; ENVIORNMENT; *MODELS; *PLANNING; *SURFACE RUNOFF; *STREAMS; *WATER RESOURCES; *WATER QUALITY

DESCRIPTIVE NOTE: 42P. PRICE: $6.00

ABSTRACT: THIS REPORT DISCUSSES AND PROVIDES USER INSTRUCTIONS FOR A COMPUTERIZED WATER QUALITY MODEL THAT WILL HELP SATISFY THE ARMY ENVIRONMENTAL PLANNER'S NEED FOR QUANITATIVE INFORMATION ON DISSOLVED OXYGEN RESOURCES IN A STREAM CAUSED BY NEW ARMY PROJECTS OR ACTIVITIES. THE INFORMATION PROVIDED FROM THIS MODEL WILL BE USEFUL FOR PROVIDING DATA FOR IMPACTS ON THE DISSOLVED OXYGEN CONTENT OF A STREAM FOR A SINGLE-REACH,SINGLE-POINT-SOURCE POLLUTANT INFLOW SITUATION WITH STEADY-FLOW CONDITIONS. THREE SUBPROGRAMS WITHIN THE MODEL ARE USED TO CALCULATE THE IMPACT OF CARBONACEOUS AND NITROGENOUS WASTE DISCHARGES IN THE OXYGEN RESOURCES IN A RECEIVING WATER BODY, THE ULTIMATE BIOLOGICAL OXYGEN DEMAND AND DEOXYGENATION COEFFICIENTS FOR BOTH CARBONACEOUS AND NITROGENOUS WASTE DISCHARGES, AND ANNUAL VARIATION IN TEMPERATURE OF A WATER BODY.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, OPERATIONS DIVISION, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW004948

PUBLICATION DATE: 79

TITLE: LAND APPLICATION OF WASTES, VOL. I.

PERSONAL AUTHOR: LOEHR, RAYMOND C.; AND OTHERS

DESCRIPTOR: CASE STUDIES; COSTS; ENVIRONMENTAL ENGINEERING; EFFLUENTS; *INSTRUCTIONAL MATERIALS; *LAND APPLICATION; LEGAL ASPECTS; *SOILS; *SITE EVALUATION; *WASTEWATER TREATMENT; *WASTE DISPOSAL; *WASTEWATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 308P. PRICE: $19.95

ABSTRACT: THIS VOLUME PRESENTS COMPREHENSIVE INFORMATION IMPORTANT TO THE LAND APPLICATION AND TREATMENT OF MUNICIPAL, INDUSTRIAL AND AGRICULTURAL WASTES. IT PROVIDES COVERAGE OF THE BASIC CONCEPTS THAT MAKE SOIL TREATMENT SYSTEMS EFFECTIVE IN TERMS OF EFFICIENCY AND COST. ALSO CONTAINED IS ESSENTIAL INFORMATION THAT IS NECESSARY TO EVALUATE AND COMPARE LAND DISPOSAL ALTERNATIVES TO CONVENTIONAL TREATMENT AND DISCHARGE TECHNOLOGY.

AVAILABILITY: VAN NOSTRAND REINHOLD CO. 135 WEST 50TH ST, NEW YORK, NY 10020

IRIS ACCESSION NUMBER: EW004953

PUBLICATION DATE: 80

TITLE: HANDBOOK OF ORGANIC WASTE CONVERSION.

PERSONAL AUTHOR: EDITOR: BEWICK, MICHAEL WILLIAM

DESCRIPTOR: AGRICULTURAL WASTES; BY-PRODUCTS; *FERTILIZERS; MUNICIPAL WASTES; *ORGANIC WASTES; PAPER WASTES; *REPROCESSING; *RESOURCE CONSERVATION; *SLUDGE; *WASTE CONVERSION; *WASTE REPROCESSING

DESCRIPTIVE NOTE: 420P. PRICE: $24.50

ABSTRACT: THIS BOOK EXAMINES THE REPROCESSING OF ORGANIC WASTES, ASSESSING THEIR PRESENT AND POTENTIAL USES AS FEED STUFFS AND FERTILIZERS. THE HANDBOOK COVERS: ANIMAL WASTES AND CROP RESIDUES, TREATED AND UNTREATED SEWAGE SLUDGE, MUNICIPAL REFUSE PROCESSING AND USE, BREWERY, MALTING, AND DISTILLING BY-PRODUCTS, FERMENTATION AND ANTIBIOTIC WASTE MATERIALS, CELLULOSE AND LIGNOCELLULOSE WASTES, SLAUGHTERHOUSE, CANNERY, AND FOOD PROCESSING WASTES, FISH AND SHELLFISH WASTES, AND TANNERY AND LIQUID ORGANIC WASTES. EACH CHAPTER INCLUDES A DETAILED CHEMICAL ANALYSIS OF THE WASTE, EXAMINES THE FEED OR FERTILIZER POTENTIAL, EXPLAINS VARIOUS REPROCESSING ALTERNATIVES, AND IDENTIFIES COSTS AND PROBLEM AREAS. SEVERAL TABLES AND DIAGRAMS ARE INCLUDED AS WELL AS DETAILED LIST OF REFERENCES.

AVAILABILITY: VAN NOSTRAND REINHOLD, 7625 EMPIRE DR, FLORENCE, KY 41042

IRIS ACCESSION NUMBER: EW004960

PUBLICATION DATE: 79

TITLE: MANAGING SMALL WATER SYSTEMS; A COST STUDY - VOLUME I.

PERSONAL AUTHOR: STEVIE, RICHARD; AND OTHERS

DESCRIPTOR: *COST STUDIES; *DRINKING WATER; EVALUATION; *LEGAL REQUIREMENTS; *MANAGEMENT; *SAFE DRINKING WATER ACT; UTILITIES; *WATER UTILITIES; *WATER SUPPLY; *WATER TREATMENT; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: 216P.

ABSTRACT: THE SAFE DRINKING WATER ACT OF 1974 ESTABLISHED PRIMARY HEALTH-RELATED, BUT NONENFORCEABLE GUIDELINES FOR DRINKING WATER SUPPLIES. THESE STANDARDS WILL BRING ABOUT A FUNDAMENTAL EXAMINATION OF THE WAY WATER IS HANDLED BEFORE IT IS DELIVERED TO THE CONSUMER. THIS REPORT EXAMINES THE ECONOMIC IMPACT THAT MANY OF THESE CHANGES WILL HAVE ON THE AFFECTED WATER UTILITIES. IT CONTAINS DETAILED INFORMATION ON THE CURRENT COSTS OF WATER SUPPLY FOR 23 SELECTED SMALL WATER UTILITIES. IN ADDITION TO PROVIDING INFORMATION ON THE INDIVIDUAL SUPPLIES, DATA ARE AGGREGATED TO PROVIDE PROJECTIONS OF THE RELATIVE IMPACT OF VARIOUS STRATEGIES THAT MIGHT BE UNDERTAKEN TO SATISFY THE ACT'S REQUIREMENTS. THIS VOLUME IS A SUMMARY OF SELECTED DATA FROM THE STUDY ALONG WITH ANALYSIS OF THE DATA.

AVAILABILITY: U.S.E.P.A., P.O. BOX 19369, CINCINNATI, OH 45219

IRIS ACCESSION NUMBER: EW004961

PUBLICATION DATE: 79

TITLE: MANAGING SMALL WATER SYSTEMS. A COST STUDY-VOL. II.

PERSONAL AUTHOR: GILLEAN, JAMES I.; AND OTHERS

DESCRIPTOR: *COSTS; *DRINKING WATER; *ECONOMICS; *MANAGEMENT; *STANDARDS; *SAFE DRINKING WATER ACT; *WATER UTILITIES; *WATER SUPPLY; *WATER TREATMENT; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: 292P.

ABSTRACT: THE SAFE DRINKING WATER ACT OF 1974 ESTABLISHES PRIMARY HEALTH-RELATED STANDARDS AND SECONDARY AESTHETIC RELATED, BUT NONENFORCEABLE GUIDELINES FOR DRINKING WATER SUPPLIES. THESE STANDARDS WILL BRING ABOUT A FUNDAMENTAL EXAMINATION OF THE WAY WATER IS HANDLED BEFORE IT IS DELIVERED TO THE CONSUMER. THIS REPORT EXAMINES THE ECONOMIC IMPACT THAT MANY OF THESE CHANGES WILL HAVE ON THE AFFECTED WATER UTILITIES. IT CONTAINS DETAILED INFORMATION ON THE CURRENT COSTS OF WATER SUPPLY FOR 23 SELECTED SMALL WATER UTILITIES. IN ADDITION TO PROVIDING INFORMATION ON THE INDIVIDUAL SUPPLIES, DATA ARE AGGREGATED TO PROVIDE PROJECTIONS OF THE RELATIVE IMPACT OF VARIOUS STRATEGIES THAT MIGHT BE UNDERTAKEN TO SATISFY THE ACTS REQUIREMENTS.

THIS VOLUME CONTAINS DETAILED IN-DEPTH INFORMATION FOR EACH UTILITY STUDIED.

AVAILABILITY: U.S. ENVIRONMENTAL PROTECTION AGENCY, P.O. BOX 19069, CINCINNATI, OH 45219

IRIS ACCESSION NUMBER: EW004962

PUBLICATION DATE: 80

TITLE: DOMESTIC WATER TREATMENT.

PERSONAL AUTHOR: LEHR, JAY H.; AND OTHERS

DESCRIPTOR: ANALYTICAL TECHNIQUES; CONSTRUCTION; FACILITIES; *INSTRUCTIONAL MATERIALS; MANAGEMENT; MAINTENANCE; *OPERATIONS (WATER); SAMPLING; *UTILITIES; *WATER TREATMENT; *WATER QUALITY; WATER POLLUTION; WASTE DISPOSAL

DESCRIPTIVE NOTE: 264P. PRICE: $19.50

ABSTRACT: THIS BOOK IS INTENDED AS A REFERENCE FOR ENGINEERS AND TECHNICIANS, AN AID TO GOVERNMENT OFFICIALS, AND A TEXT FOR STUDENTS OF WATER TREATMENT. IT PROVIDES A COMPACT OVERVIEW OF THE ENTIRE SUBJECT OF WATER QUALITY AND TREATMENT. TOPICS COVERED INCLUDE WATER CHEMISTRY, POLLUTION SOURCES, CONSTRUCTION OF WATER SUPPLY SYSTEMS, WATER SAMPLING, ANALYSIS, AND TREATMENT TECHNIQUES.

AVAILABILITY: NATIONAL WATER WELL ASSOC, 500 WEST WILSON BRIDGE RD, SUITE 135, WORTHINGTON, OH 43085

IRIS ACCESSION NUMBER: EW004965

PUBLICATION DATE: MAR 76

TITLE: MICROBIOLOGY AND CHEMISTRY STUDIES OF WATER QUALITY FACTORS IN A WATERSHED USED FOR MUNICIPAL SUPPLY AND WASTE DISPOSAL (PHASEII).

PERSONAL AUTHOR: SCHILLINGER, JOHN EDWARD; STUART, DAVID G.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; AGRICULTURAL RUNOFF; BACTERIAL INJURY; *BACTERIA; *CHEMISTRY; EVALUATION; *INDICATOR BACTERIA; *LABORATORY PROCEDURES; *LOGGING; *LANDCARE; *MICROBIOLOGY; POLLUTION; RESEARCH; *SEWAGE; *STREAMS; SAMPLING; *WATER QUALITY; *WATERSHEDS; *WASTE DISPOSAL; *WATER POLLUTION

DESCRIPTIVE NOTE: 124P. PRICE: $5.25

ABSTRACT: CHEMICAL AND BACTERIOLOGICAL STUDIES OF SEVERAL LAND USES WERE PREFORMED TO DETERMINE RELATIVE IMPACTS ON WATER QUALITY. OUTDOOR RECREATION, CAMPING, SKI DEVELOPMENTS AND CLEARCUT LOGGING WITH THE USE OF STREAMSIDE BUFFER ZONES DID NOT APPEAR TO APPRECIABLY AFFECT WATER QUALITY. HOWEVER, WILD ANIMALS, CATTLE GRAZING, AGRICULTURAL RUNOFF, AND SUBURBAN AND URBAN POLLUTION AFFECTED LEVELS OF CHEMICAL NUTRIENTS AND INDICATOR BACTERIA. PROBLEMS ASSOCIATED WITH RECOVERY OF INDICATOR BACTERIA FROM WATER WERE ALSO INVESTIGATED. BACTERIAL INJURY WAS OBSERVED TO RESULT IN INCOMPLETE RECOVERY OF INDICATOR BACTERIA FROM STREAMS BY SAME LABORATORY METHODS. DIFFERENCES IN THE DEGREE OF AQUATIC INJURY WERE ALSO OBSERVED AT VARIOUS LOCATIONS THROUGHOUT THE DRAINAGE AREA. CHANGES OBSERVED IN COLIFORM SPECIES DISTRIBUTIONS AND IN SURVIVAL RATES FOR DIFFERENT BACTERIA LEAD TO QUESTIONS CONCERNING SOME OF THE ASSUMPTIONS THAT HAVE BEEN MADE REGARDING COLIFORMS AND ENTERIC PATHOGENS.

AVAILABILITY: MONTANA STATE UNIVERSITY, WATER RESOURCES RESEARCH CENTER, BOZEMAN, MT 59715

IRIS ACCESSION NUMBER: EW004972

PUBLICATION DATE: OCT 76

TITLE: PLANNING METHODOLOGIES FOR ANALYSIS OF LAND USE/WATER QUALITY RELATIONSHIPS.

PERSONAL AUTHOR: HAMMER, THOMAS P.

DESCRIPTOR: *ENVIRONMENTAL INFLUENCES; EROSION; GROUNDWATER; *HYDROLOGY; *INSTRUCTIONAL MATERIALS; *ONSITE WASTEWATER TREATMENT; *PLANNING; SEPTIC TANKS; SURFACE RUNOFF; *URBAN ENVIRONMENT; *WATER POLLUTION; *WATER POLLUTION CONTROL; *WATER QUALITY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 240P. PRICE: $4.50

ABSTRACT: THIS REPORT EVALUATES THE POTENTIAL USEFULNESS AND PRACTICALITY OF VARIOUS PLANNING METHODOLOGIES WHICH CAN BE USED TO QUANTITATIVELY DETERMINE THE RELATIONSHIP BETWEEN LAND USE AND WATER QUALITY. IT ALSO EVALUATES VARIOUS LAND USE AND LAND MANAGEMENT CONTROLS WHICH CAN BE USED TO REDUCE POLLUTANT LOADINGS. IN CARRYING OUT THESE EVALUATIONS, THE REPORT REVIEWS MUCH OF THE CURRENT LITERATURE ON THE RELATIONSHIP BETWEEN LAND USE AND WATER QUALITY. AFTER EVALUATING A RANGE OF PLANNING METHODOLOGIES AND CONTROL MEASURES, THE REPORT EXAMINES THE ANALYSIS AND CONTROL OF POLLUTANTS RESULTING FROM COMMONLY FOUND LAND USES IN DEVELOPED AND DEVELOPING URBAN AREAS. THE TOPICS INCLUDE POLLUTANTS RESULTING FROM HYDROLOGIC MODIFICATIONS, ON LOT DISPOSAL SYSTEMS, AND CONSTRUCTION ACTIVITY. ALSO APPENDED IS AN EXTENSIVE BIBLIOGRAPHY OF REFERENCES.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, GOVERNMENT PRINTING OFFICE, WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW004974

PUBLICATION DATE: JUN 80

TITLE: MANAGEMENT CONTRACT HELPS WAUSAU BACK TO NORMAL.

PERSONAL AUTHOR: HOLZ, WARD E.; AND OTHERS

DESCRIPTOR: ASSESSMENT; *CONSULTANTS; *CONTRACTS; COSTS; EVALUATION; LEGAL ACTION; MAINTENANCE; *MANAGEMENT; MANPOWER

UTILIZATION; STAFF IMPROVEMENT; STANDARDS; TRAINING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 54-55,90-92P.

ABSTRACT: A MANAGEMENT CONTRACT TAILORED TO THE UTILITY'S NEEDS LED TO NPDES COMPLIANCE AND THE SETTLEMENT OF LEGAL ACTION INITIATED BY THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES. THE CONTRACT BETWEEN A PRIVATE MANAGEMENT FIRM AND THE UTILITY SPELLED OUT SPECIFIC PROGRAMS IN PROCESS OPTIMIZATION, STAFFING AND TRAINING, PREVENTATIVE MAINTENANCE AND A SYSTEM OF REPORTING TO THE UTILITY AND TO REGULATORY AGENCIES. IT DEMONSTRATED THE FEASIBILITY OF PRIVATE ASSESSMENT OF A PUBLIC-TREATMENT SITUATION, AND REINFORCEMENT OF A NUMBER OF TREATMENT PLANT BASICS TO STABILIZE PLANT OPERATIONS AND IMPROVE EMPLOYEE EFFECTIVENESS.

AVAILABILITY: WATER 8 SEWAGE WORKS, V127 N6

IRIS ACCESSION NUMBER: EW004975

PUBLICATION DATE: JUN 80

TITLE: DESIGN TOOL AIDS GROUNDWATER MANAGEMENT.

PERSONAL AUTHOR: NIGHTINGALE, HARRY I.

DESCRIPTOR: CHEMICAL ANALYSIS; *DECISION MAKING; DRINKING WATER; *GROUNDWATER; *HYDROLOGY; *MANAGEMENT; MATHEMATICAL APPLICATIONS; *MATHEMATICAL MODELS; STANDARDS; *STATISTICS; *WATER QUALITY; WELLS

DESCRIPTIVE NOTE: 56-57,91-92P.

ABSTRACT: DECISION MAKERS NOT TRAINED IN HYDROLOGY OF GEOHYDROCHEMISTRY CAN BE RESPONSIBLE GROUNDWATER CHEMICAL QUALITY MANAGERS IF THEY'LL USE THE SIMPLE STATISTICAL TOOL DESCRIBED IN THIS ARTICLE. THE TOOL IS A GRAPH OF THE PROBABILITY DENSITY OF SPECIFIC ELECTRICAL CONDUCTIVITY OF ION-CONCENTRATION PARAMETER. ONCE THE EMPIRICAL CONCENTRATION-PROBABILITY DISTRIBUTION CURVE IS DRAWN, IT GIVES DECISION MAKERS, FOR NORMAL OR NORMALIZED DISTRIBUTIONS, SUCH INFORMATION AS: (1) AN ESTIMATE OF THE POPULATION MEDIAN, (2) AN ESTIMATE OF POPULATION VARIANCE, (3) THE GENERAL RANGE OF EXPECTED CONCENTRATION VALUES, AND (4) THE PROBABILITY OF FIELD CONCENTRATION VALUES BEING EQUAL TO OR LESS THAN A GIVEN CONCENTRATION VALUE.

AVAILABILITY: WATER 8 SEWAGE WORKS, V127 N6

IRIS ACCESSION NUMBER: EW004976

PUBLICATION DATE: JUN 80

TITLE: FACING A MAJOR DISASTER WITH CALM ASSURANCE.

PERSONAL AUTHOR: SINGER, PAUL R.; VOYLES, CHARLES F.

DESCRIPTOR: *CALIFORNIA; *DISASTERS; *EARTHQUAKES; ENGINEERING; EQUIPMENT; *EMERGENCIES; FACILITIES; MANAGEMENT; MANPOWER UTILIZATION; *PLANNING; SEISMIC INVESTIGATIONS; *WATER DISTRICTS; *WATER RESOURCES

DESCRIPTIVE NOTE: 58-60,74P.

ABSTRACT: THIS ARTICLE DISCUSSES THE FORMALIZED EMERGENCY DISASTER RESPONSE PROCEDURES ESTABLISHED BY SOUTHERN CALIFORNIA'S METROPOLITAN WATER DISTRICT. AN EARTHQUAKE COMMITTEE COMPOSED OF ENGINEERING AND OPERATIONS PERSONNEL WAS FORMED FOR MAKING SEISMIC INVESTIGATIONS OF ALL FACILITIES, RECOMMENDATIONS FOR IMPROVEMENTS, AND AN EARTHQUAKE EMERGENCY RESPONSE PLAN. ITS WORK FOCUSSED ON THREE BASIC PROGRAMS, EACH PERFORMED BY A SEPARATE SUBCOMMITTEE: (1) SHORT-RANGE INVESTIGATIONS, (2) LONG RANGE INVESTIGATIONS, AND (3) EMERGENCY RESPONSE. AS A RESULT OF ITS EFFORT, METROPOLITAN HAS THE ABILITY TO CONTINUE FUNCTIONING OR RETURN TO AT LEAST MINIMAL OPERATIONS FOLLOWING A DEVASTATING EARTHQUAKE.

AVAILABILITY: WATER 8 SEWAGE WORKS, V127 N6

IRIS ACCESSION NUMBER: EW004977

PUBLICATION DATE: JUN 80

TITLE: STAINING MIXED-LIQUOR BIOTA.

PERSONAL AUTHOR: GERARD, MICHAEL

DESCRIPTOR: *BIOTA; *LABORATORY PROCEDURES; *LABORATORY TECHNIQUES; *MICROSLIDES; *MIXED LIQUOR; *MICROBIOLOGY; *PHOTOMICROGRAPHY; RESEARCH; *STAINING TECHNIQUES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 64,74P.

ABSTRACT: THE PREPARATION OF A PERMANENT AND RELIABLE MICROSLIDE RECORD OF MIXED LIQUOR (ML) BIOTA FOR THE CORRELATION WITH TREATMENT PLANT CONDITIONS CAN YIELD NUMEROUS BENEFITS. SUCH METHODOLOGY COULD BE AN "IN PLANT" OPERATIONAL KEY FOR INCREASING EFFICIENCY. OR IT COULD BE AN "ON-SITE" RESEARCH TOOL FOR FURTHER STUDIES OF MIXED LIQUOR BIOTA, AND AN EDUCATIONAL RECORD FOR TRAINING PLANT OPERATORS IN THE WASTEWATER FIELD. THE TECHNIQUES FOR MAKING THESE SLIDES ARE PROVIDED IN THIS ARTICLE.

AVAILABILITY: WATER 8 SEWAGE WORKS, V127 N6

IRIS ACCESSION NUMBER: EW004978

PUBLICATION DATE: JUN 80

TITLE: RANKING SLUDGE REMOVAL METHODS.

PERSONAL AUTHOR: BOYLE, WILLIAM H.

DESCRIPTOR: *ACTIVATED SLUDGE; *CLARIFIERS; DESIGN; *EQUIPMENT; *EVALUATION; *METHODS; *OPERATIONS (WASTEWATER); SCRAPING; SLUDGE; *SLUDGE REMOVAL; SUCTION; TESTING;

*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 70-72P.

ABSTRACT: TWO OPTIONS ARE AVAILABLE FOR REMOVING SLUDGE FROM THE FINAL CLARIFIER OF THE ACTIVATED SLUDGE PROCESS: SCRAPING OR SUCTION. THE ARTICLE EXAMINES BOTH METHODS INCLUDING TECHNIQUES THAT FOR PROPONENTS OF SLUDGE THICKENING IN FINAL CLARIFIERS, REMOVAL BY SUCTION ACHIEVES RESULTS EQUAL TO OR BETTER THAN SCRAPING. THE REASONS FOR THIS IS THAT THE SLUDGE CAN BE PERMITTED TO SETTLE FOR A LONGER TIME BEFORE WITHDRAWAL (SINCE WITHDRAWAL CAN BE FASTER) AND USE OF A WIDER BED AREA IS POSSIBLE.

AVAILABILITY: WATER & SEWAGE WORKS, V127 N6

IRIS ACCESSION NUMBER: EW004979

PUBLICATION DATE: JUN 80

TITLE: STAFFING FOR WASTEWATER COLLECTION SYSTEMS.

PERSONAL AUTHOR: SHAH, JAYPRAKASH B.

DESCRIPTOR: *EMPLOYMENT PROJECTIONS; MAINTENANCE; MANAGEMENT; *MANPOWER NEEDS; MANPOWER UTILIZATION; OPERATIONS (WASTEWATER); *PLANNING; PERSONNEL; *REQUIREMENTS; *STAFF; STAFF SELECTION; *WASTEWATER COLLECTION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 76-78,87-89P.

ABSTRACT: A METHOD FOR STAFFING FOR A COLLECTION SYSTEM IS PRESENTED WHICH CONSISTS OF COLLECTING DATA FROM EXISTING, WELL-MAINTAINED ONES AND APPLYING THE RESULTS TO A NEW COLLECTION SYSTEM UNDER CONSIDERATION. CARE MUST BE TAKEN IN SELECTING THE COMMUNITIES FOR THE DATA BASE BY ELIMINATING UNDERSTAFFED OR INDUSTRIAL COMMUNITIES. THIS METHOD IS CONSISTENT WITH THE EPA REPORT ON STAFFING FOR WASTEWATER TREATMENT FACILITIES. TOPICS INCLUDED IN THIS ARTICLE ARE: STAFFING SURVEY, DATA BASE, "AVERAGE" COLLECTION SYSTEM, ADJUSTMENT FACTORS, USING STAFFING ESTIMATE CURVES, AND RECOMMENDATIONS.

AVAILABILITY: WATER & SEWAGE WORKS; V127 N6

IRIS ACCESSION NUMBER: EW005009

PUBLICATION DATE: JUL 80

TITLE: GROUND-WATER MANAGEMENT WITH FIXED CHARGES.

PERSONAL AUTHOR: AGUADO, EDUARDO; REMSON, IRWIN.

DESCRIPTOR: *CONSTRUCTION; *ECONOMICS; *EXCAVATIONS; *GROUND WATER; *HYDRAULICS; *WATER WELLS

DESCRIPTIVE NOTE: 375-381P.

ABSTRACT: THE PROBLEM OF WHERE TO DRILL WELLS, HOW MANY TO DRILL, AND HOW TO PUMP THEM IN ORDER TO MAINTAIN LOW WATER LEVELS IN AN EXCAVATION MOST ECONOMICALLY, IS FORMULATED AS A FIXED-CHANGE PROBLEM. SOLUTIONS INCLUDE OPTIMAL WELL LOCATIONS, COSTS, STEADY-STATE DISCHARGE SCHEDULES, AND HYDRAULIC HEAD DISTRIBUTIONS.

AVAILABILITY: JOURNAL OF THE WATER RESOURCES PLANNING AND MANAGEMENT DIVISION; V106 N2

IRIS ACCESSION NUMBER: EW005073

TITLE: THE IMPACT OF NEW GOVERNMENT REGULATIONS ON OCCUPATIONAL SAFETY.

PERSONAL AUTHOR: PURSWELL, JERRY L.

DESCRIPTOR: *AUDIOVISUAL AIDS; FEDERAL GOVERNMENT; *HEALTH; *INSTRUCTIONAL MATERIALS; *LEGISLATION; *OCCUPATIONAL SAFETY; *REGULATIONS; *SAFETY

DESCRIPTIVE NOTE: PRICE: RENTAL $75.00 PER WEEK, PURCHASE $300.00

ABSTRACT: IN THE 1980'S THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATIONS REGULATORY PROGRAM ON SAFETY STANDARDS WILL FOCUS ON CONTINUING REVIEW AND REVISION OF CONSENSUS STANDARDS ADOPTED IN 1971, AND ON THE DEVELOPMENT OF NEW STANDARDS TO DEAL WITH IMPORTANT HAZARDS CURRENTLY NOT REGULATED. PRESENTATION IS BY DR JERRY L PURSWELL.

AVAILABILITY: AMCEE, DEPT OSHA, GEORGIA INSTITUTE OF TECHNOLOGY, ATLANTA, GA 30332

IRIS ACCESSION NUMBER: EW005074

TITLE: MANAGEMENT'S SAFETY MIRROR: ISMEC.

PERSONAL AUTHOR: BIRD, FRANK E., JR

DESCRIPTOR: *AUDIOVISUAL AIDS; *HEALTH; *INSTRUCTIONAL MATERIALS; *LEGISLATION; *MANAGEMENT; *OCCUPATIONAL SAFETY; *RISK FACTORS; *REGULATIONS; *SAFETY

DESCRIPTIVE NOTE: PRICE: RENTAL $75.00 PER WEEK, PURCHASE $300.00

ABSTRACT: GROWING RISK FACTORS REQUIRE A MORE COMPREHENSIVE SAFETY MANAGEMENT SYSTEM. THE COMPONENTS OF ISMEC, THE IDENTIFICATION OF WORK REQUIRED TO ACHIEVE DESIRED SAFETY OBJECTIVES, STANDARDS FOR WORK PERFORMANCE, MEASUREMENT OF PERFORMANCE OF STANDARDS, EVALUATING AND CORRECTING ARE ANALYZED IN DETAIL.

AVAILABILITY: AMCEE, DEPT OSHA, GEORGIA INSTITUTE OF TECHNOLOGY, ATLANTA, GEORGIA 30332

IRIS ACCESSION NUMBER: EW005081

PUBLICATION DATE: FEB 77

TITLE: THE FOREST PRACTICE RULES AND YOU.

DESCRIPTOR: *CONSERVATION (ENVIRONMENT); *FORESTRY; LEGISLATION; *RULES; *REGULATIONS; TIMBER PRODUCTION; *WATER RESOURCES; *WILDLIFE MANAGEMENT

DESCRIPTIVE NOTE: 45P.

ABSTRACT: THE NEW FOREST PRACTICES ACT WAS PASSED IN 1974 AND AMENDED IN 1975. THE ACT CONSIDERS ALL USES OF THE FOREST, RANGING FROM TIMBER AND WATER PRODUCTION TO FISH AND WILDLIFE PROTECTION. THIS BOOKLET ILLUSTRATES SUPPLEMENTAL GUIDELINES TO THE RULES AND REGULATIONS OF THE WASHINGTON FOREST PRACTICES BOARD WHICH ENSURE ENVIRONMENTAL PROTECTION.

AVAILABILITY: THE WASHINGTON FOREST PROTECTION ASSOCIATION, 1411 FOURTH AVENUE BUILDING, SUITE 1220, SEATTLE, WASHINGTON 98101

IRIS ACCESSION NUMBER: EW005085

PUBLICATION DATE: AUG 77

TITLE: BACHELOR OF ENGINEERING TECHNOLOGY PROGRAM, FINAL TECHNICAL REPORT.

PERSONAL AUTHOR: CHEVALIER, CHARLES E., PROJECT DIRECTOR

DESCRIPTOR: *AIR POLLUTION; *CURRCULUM; *ENVIRONMENTAL TECHNOLOGISTS; *ENGINEERING; *ENVIRONMENTAL ENGINEERING; HIGHER EDUCATION; POLLUTION CONTROL; *PROGRAM DESCRIPTIONS; *WATER POLLUTION

DESCRIPTIVE NOTE: 61P.

ABSTRACT: DESCRIBES THE DEVELOPMENT AND IMPLEMENTATION OF A NEW CURRICULUM TO EDUCATE ENVIRONMENTAL TECHNOLOGISTS IN THE AREAS OF AIR AND WATER POLLUTION, WITH EMPHASIS ON MONITORING, ANALYSIS AND CONTROL. THE FOUR YEAR COLLEGE PROGRAM PREPARES AND TRAINS OPERATIONALLY ORIENTED ENGINEERING TECHNOLOGISTS WITH THE SPECIALIZATION TO IMMEDIATELY ASSUME A POSITION AS A MEMBER OF AN ENVIRONMENTAL ENGINEERING TEAM AND THE SOUND BACKGROUND TO REACT TO THE CHARGES OF RAPIDLY EVOLVING TECHNOLOGY.

AVAILABILITY: DEPARTMENT OF ENGINEERING & TECHNOLOGY, NORWICH UNIVERSITY, NORTHFIELD, VERMONT 05663

IRIS ACCESSION NUMBER: EW005086

PUBLICATION DATE: MAR 78

TITLE: ECONOMIC IMPACT OF THE PROPOSED AVERAGING RULE, R76-21.

PERSONAL AUTHOR: MUCHMORE, CHARLES B.; AND OTHERS

DESCRIPTOR: *AGRICULTURE; *COST-BENEFIT ANALYSIS; *ECONOMICS; *ECONOMIC IMPACT STUDIES; EFFLUENT STANDARDS; ENVIRONMENT; *REGULATIONS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 45P.

ABSTRACT: THIS REPORT ANALYZES THE ECONOMIC IMPACTS OF AMENDING A WATER POLLUTION CONTROL REGULATION. THE CURRENT AND ANTICIPATED ENVIRONMENTAL CONSEQUENCES WERE REVIEWED AND ASSESSED, ALONG WITH THE EXPECTED BENEFITS AND COSTS.

AVAILABILITY: ILLINOIS INSTITUTE OF NATURAL RESOURCES, 309 WEST WASHINGTON STREET, CHICAGO, IL 60606

IRIS ACCESSION NUMBER: EW005089

PUBLICATION DATE: AUG 79

TITLE: A HANDBOOK OF KEY FEDERAL REGULATIONS AND CRITERIA FOR MULTIMEDIA ENVIRONMENTAL CONTROL.

PERSONAL AUTHOR: GREENWOOD, D. R.; AND OTHERS

DESCRIPTOR: *ENVIRONMENTAL CONTROL; ENVIRONMENTAL LEGISLATION; *FEDERAL REGULATIONS; *FEDERAL CRITERIA; *MULTIMEDIA ENVIRONMENTAL CONTROLS; OCCUPATIONAL HEALTH; *POLLUTION CONTROL; *REGULATIONS; *STANDARDS; TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 272P.

ABSTRACT: A SUMMARY OF MAJOR FEDERAL ENVIRONMENTAL REGULATIONS AND RECOMMENDATIONS AND THE LEGISLATIVE ACTS THAT AUTHORIZE THEM IS PRESENTED. QUANTITATIVE CONTROL LIMITS SPECIFIED BY FEDERAL AGENCIES ARE SUMMARIZED AND TABULATED. THE VARIOUS REGULATIONS, STANDARDS, AND CRITERIA ARE COMPARED. A SELECTED BIBLIOGRAPHY ADDRESSING FEDERAL ENVIRONMENTAL CONTROL ACTIVITIES IS INCLUDED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VIRGINIA 22161

IRIS ACCESSION NUMBER: EW005090

TITLE: HANDBOOK OF BEST MANAGEMEMENT PRACTICES.

DESCRIPTOR: *BEST MANAGEMENT PRACTICES; CONSERVATION; *INSTRUCTIONAL MATERIALS; *LAND USE; *MANAGEMENT; *NEVADA; *NONPOINT POLLUTION; *NONPOINT SOURCES; PLANNING; SOIL CONSERVATION; WATER CONSERVATION; *WATER QUALITY

DESCRIPTIVE NOTE: 390P.

ABSTRACT: THIS HANDBOOK WAS DESIGNED AS A GUIDE FOR RESOURCE AND SITE SPECIFIC PLANNING TO BE INCLUDED IN A WATER QUALITY MANAGEMENT PROGRAM FOR THE NON-DESIGNATED AREA OF THE STATE OF NEVADA. BEST MANAGEMENT PRACTICES ARE DEFINED AS "A PRACTICE, OR COMBINATION OF PRACTICES, DETERMINED TO BE THE MOST EFFECTIVE, PRACTICAL MEANS OF PREVENTING OR REDUCING THE AMOUNT OF WATER POLLUTION FROM NON-POINT SOURCES TO A LEVEL COMPATIBLE WITH WATER QUALITY GOALS". 44 SUCH PRACTICES ARE EXAMINED ACCORDING TO THEIR DEFINITION, PURPOSE, APPLICABILITY, PLANNING CRITERIA, METHODS AND MATERIALS, MAINTENANCE AND EFFECTIVENESS. A DETAILED APPENDIX DISCUSSES LAND TREATMENT GROUPS, INFORMATION ON COSTS FOR SELECT MANAGEMENT PRACTICES, AND GUIDELINES AND SPECIFICATIONS FOR PLANNING LAND TREATMENTS FOR CONTROLLING NON-POINT POLLUTION. ALSO INCLUDED IS A GLOSSARY, LIST OF REFERENCES, AND SOURCES OF ASSISTANCE.

AVAILABILITY: STATE OF NEVADA, DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES, DIVIDION OF FORESTRY, CAPITAL COMPLEX, CARSON CITY, NEVADA 89710

IRIS ACCESSION NUMBER: EW005098

PUBLICATION DATE: DEC 79

TITLE: OIL WATER SEPARATORS--(CITATIONS FROM THE ENGINEERING INDEX DATA BASE).

PERSONAL AUTHOR: LEHMANN, EDWARD J.

DESCRIPTOR: *CHEMISTRY; COST EFFECTIVENESS; DESIGN; *EQUIPMENT; *EFFLUENTS; *INDUSTRIAL WASTES; *LITERATURE REVIEWS; *OIL; *OIL WATER SEPARATORS; *OIL RECOVERY; *WATER POLLUTION CONTROL; *WASTE OIL TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 132P. PRICE: $30.00

ABSTRACT: THE CITATIONS IN THIS LITERATURE REVIEW ARE FROM THE ENGINEERING INDEX DATA BASE AND ARE MAINLY CONCERNED WITH WATER POLLUTION CONTROL. A RANGE OF EQUIPMENT IS DESCRIBED, INCLUDING GRAVITY SEPARATORS, CENTRIFUGES, MEMBRANES, COALESCERS, FILTERS, DISTILLATION COLUMNS, AND FLOTATION UNITS. OIL RECOVERY FROM OIL SPILLS IS COVERED. SEPARATION OF THESE COMPONENTS IN BALLAST AND BILGE WATER, FACTORY EFFLUENTS, PETROLEUM REFINERIES, AND WASTE OIL TREATMENT IS STUDIED. DESIGN, OPERATION, COSTS, TESTING, AND EFFICIENCY OF THESE ARTICLES ARE REPORTED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW005103

PUBLICATION DATE: DEC 79

TITLE: WATER RESOURCES IN ARID AND SEMIARID REGIONS.

PERSONAL AUTHOR: BROWN, ROBENA J.

DESCRIPTOR: *ARID REGIONS; *BIBLIOGRAPHIES; *HYDOLOGY; *IRRIGATION; MODELING; *NATURAL RESOURCES; *POTABLE WATER; RESOURCE MANAGEMENT; *SEMIARID REGIONS; *WATER RESOURCES; WATER QUALITY; *WATER CONSERVATION

DESCRIPTIVE NOTE: 243P. PRICE: $30.00

ABSTRACT: THE CITATIONS COVER REPORTS CONCERNED WITH WATER QUALITY, RESOURCE MANAGEMENT, POTABLE WATER, CONSUMPTION, AND IRRIGATION AS THEY APPLY TO SEMIARID REGIONS, PARTICULARLY THOSE IN THE WESTERN REGION OF THE UNITED STATES. HYDROLOGY, MODELING, AND WATER ALLOCATION ARE ALSO COVERED ALONG WITH STUDIES ON WATER CONSERVATION MEASURES, WHICH WILL ADD TO THE WATER RESOURCES IN THESE AREAS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICES, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW005104

PUBLICATION DATE: MAR 80

TITLE: WASTE TREATMENT IN DAIRY, POULTRY, MEAT, AND SEAFOODS INDUSTRIES.

PERSONAL AUTHOR: YOUNG, GILBERT C.

DESCRIPTOR: *DAIRY INDUSTRY; EFFLUENTS; *INDUSTRIAL WASTES; *MEAT INDUSTRY; *OPERATIONS (WASTEWATER); *POULTRY INDUSTRY; *POLLUTION CONTROL; *SEAFOOD INDUSTRY; *WASTEWATER TREATMENT; *WASTE DISPOSAL; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 105P. PRICE: $30.00

ABSTRACT: THE CITED STUDIES COVER THE ANALYSIS AND TREATMENT OF WASTES AND EFFLUENTS IN THE DAIRY, POULTRY, MEAT, AND SEAFOOD INDUSTRIES. OTHER TOPICS INCLUDE, EPIDEMIOLOGICAL STUDIES, ENVIRONMENTAL PROBLEMS RELATED TO WASTE MANAGEMENT, AND POLLUTION CONTROL.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW005107

PUBLICATION DATE: DEC 79

TITLE: OIL WATER SEPARATORS--(CITATIONS FORM THE AMERICAN PETROLEUM INSTITUTE DATA BASE).

PERSONAL AUTHOR: LEHMANN, EDWARD J.

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; EQUIPMENT; LABORATORY TESTS; *OIL WATER SEPARATORS; *OIL POLLUTION CONTROL; OIL RECOVERY; *OIL; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 158P. PRICE: $30.00

ABSTRACT: CITATIONS COVER RESEARCH ON THESE DEVICES PRIMARILY FOR OIL POLLUTION CONTROL. EQUIPMENT STUDIED INCLUDES COALESCERS, FILTERS, SKIMMERS, SCRUBBERS, ABSORBERS, CENTRIFUGES, AND SWEEPS. OIL RECOVERY FROM OIL SPILLS, SEPARATION FROM BILGE AND BALLAST WATER, AND REMOVAL FROM PETROLEUM REFINERY EFFLUENTS ARE DESCRIBED. THE OPERATION, TESTING, AND PERFORMANCE OF THIS EQUIPMENT IN THE

LABORATORY AND IN THE FIELD ARE REPORTED. THIS UPDATED BIBLIOGRAPHY CONTAINS 158 ABSTRACTS, 18 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW005114

PUBLICATION DATE: AUG 79

TITLE: CHALLENGES IN URBAN RUNOFF CONTROL (PLANNING, IMPLEMENTATION AND SIMULATION).

PERSONAL AUTHOR: MCPHERSON, M. B.

DESCRIPTOR: COST ANALYSIS; *ECONOMICS; EROSION; *FEASIBILITY STUDIES; FLOOD CONTROL; HYDROLOGY; *PLANNING; *SURFACE RUNOFF; RESERVOIRS; *SIMULATION; STORM SEWERS; SEWERS; *URBAN AREAS; *WATER QUALITY; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 43P. PRICE: $6.00

ABSTRACT: AREAWIDE PLANNING FOR WATER POLLUTION MANAGEMENT HAS BEEN UNDERTAKEN IN A MAJORITY OF METROPOLITAN AREAS UNDER SECTION 208 OF PL 92-500. URBAN RUNOFF CONSIDERATIONS HAVE BEEN AN ISSUE IN MANY OF THESE AREAS. IN AN EFFORT TO PROMOTE LONG-RANGE CONJUNCTIVE QUANTITY AND QUALITY PLANNING, A DOZEN SEMINARS, WORKSHOPS, AND CONFERENCES HOSTED BY AREA WIDE PLANNING AGENCIES WERE CONDUCTED AT WIDELY SEPARATED URBAN CENTERS ACROSS THE COUNTRY. REPORTED ARE RESPONSES TO POINTS RAISED AT THESE PRESENTATIONS PLUS FINDINGS FROM THE MONITORING OF FOUR ON-GOING LOCAL JURISDICTION PLANNING PROJECTS. THE POSTPONED ROLE OF STREAM STANDARDS AND THE IMPLICATIONS OF THEIR FUTURE ENFORCEMENT ARE EXAMINED. PLAN FLEXIBILITY, COST ALLOCATION, AVAILABLE TECHNOLOGY, SCALE OF INVESTMENTS AND TECHNICAL INTERRELATIONSHIP'S ARE CONSIDERED. A DESCRIPTION IS SYNTHESIZED OF THE FIRST PHASE OF FOUR LOCAL GOVERNMENT TWO-PHASE MASTER PLANS. FINDINGS FROM EXPERIENCES WITH SIMULATION OF AN AREA WIDE PLANNING AGENCY ARE OUTLINED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGIELD, VA 22161

IRIS ACCESSION NUMBER: EW005117

PUBLICATION DATE: JUL 79

TITLE: MANAGEMENT OF SMALL-TO-MEDIUM SIZED MUNICIPAL WASTEWATER TREATMENT PLANTS.

DESCRIPTOR: *ADMINISTRATIVE ORGANIZATION; *ADMINISTRATION; DECISION MAKING; EMPLOYER EMPLOYEE RELATIONSHIPS; FACILITIES; *INSTRUCTIONAL MATERIALS: *LEADERSHIP TRAINING; *MANAGEMENT; *MANAGEMENT EDUCATION; MANAGEMENT SYSTEMS; *OPERATIONS (WASTEWATER); *PERSONNEL MANAGEMENT; *PLANNING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 165P. PRICE: $12.00

ABSTRACT: PRESENTED IS A DISCUSSION OF EFFECTIVE PLANT MANAGEMENT AND METHODS OF INCREASING THE EFFECTIVENESS OF THE MANAGEMENT. WHILE THE DISCUSSION COULD BY USEFUL TO ANY PLANT MANAGER IT IS ESPECIALLY WRITTEN FOR MANAGERS OF SMALL TO MEDIUM SIZED MUNICIPAL WASTEWATER TREATMENT PLANTS IN THE RANGE OF 3 TO 10 MGD. INCLUDED IN THE DISCUSSION ARE THE FOLLOWING TOPICS: (1) MANAGEMENT OPPORTUNITIES, RESPONSIBILITIES, AND CONSTRAINTS, (2) EVALUATING THE EFFECTIVENESS OF PLANT MANAGEMENT, (3) ORGANIZATIONAL CONSIDERATIONS, (4) REGULATIONS, (5) PLANNING, PROGRAMMING, AND BUDGETING, (6) FINANCING, (7) EVALUATING STAFFING NEEDS, (8) EMPLOYEE RELATIONS, (9) PUBLIC RELATIONS, (10) SELECTION AND USE OF CONSULTANTS, (11) CONTRACTS FOR OPERATION AND MAINTENANCE, AND (12) ENERGY CONSERVATION. APPENDED IS A BIBLIOGRAPHY AND INDICES GIVING AN EXAMPLE ALLOCATION OF COSTS AND EXAMPLE STAFFING CALCULATIONS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

INSTITUTION NAME: CULP/WESNER/CULP.

IRIS ACCESSION NUMBER: EW005121

PUBLICATION DATE: JUN 78

TITLE: WATER/LAND PROBLEMS IN URBANIZING AREAS.

DESCRIPTOR: *CONFERENCE PROCEEDINGS; DRAINAGE; FLOOD MANAGEMENT; GROUNDWATER; HYDROLOGY; *LAND PROBLEMS; *RESEARCH PRIORITIES; *SURFACE RUNOFF; *URBAN AREAS; *WATER PROBLEMS; *WATER RESOURCES; *WATER QUALITY

DESCRIPTIVE NOTE: 78P.

ABSTRACT: URBANIZING AREAS OFTEN EXPERIENCE PROBLEMS IN OBTAINING AN ADEQUATE SUPPLY OF WATER IN PROVIDING FOR WATER TREATMENT AND DISTRIBUTION, AND IN ENSURING THAT WASTEWATER IS ADEQUATELY TREATED SO AS TO PROTECT THE ENVIRONMENT AND, IN SOME CASES, TO PERMIT ITS REUSE. THESE INHERENTLY COMPLEX PROBLEMS ARE BEING MADE MORE DIFFICULT TO SOLVE BY THE CONTINUING INCREASE IN THE NUMBER AND TYPE OF POLLUTANTS PRESENT AND BY THE STRONG DEMAND FOR A HIGH-QUALITY ENVIRONMENT. THESE PROCEEDINGS PRESENT ASSESSMENTS OF THE PROBLEMS AND OF THE RESEARCH NEEDED TO SOLVE THEM AS DISCUSSED BY CONSULTANTS AND GOVERNMENT AGENCY PERSONNEL DURING A ONE-DAY WORKSHOP SPONSORED BY THE WATER RESOURCES CENTER AT THE UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN. THE PRESENTATIONS COVER TOPICS SUCH AS GROUNDWATER AND SURFACE WATER SUPPLIES, DRAINAGE, FLOOD MANAGEMENT, THE QUALITY OF STORM RUNOFF WATER, AND PLANNING METHODS AS THESE ISSUES AFFECT BOTH SMALL COMMUNITIES AND MAJOR URBAN AREAS.

AVAILABILITY: UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN, WATER RESOURCES CENTER, URBANA, ILLINOIS

INSTITUTION NAME: WATER RESOURCES CENTER, UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN.

IRIS ACCESSION NUMBER: EW005128

PUBLICATION DATE: 75

TITLE: TOXICITY OF PULPING WASTES TO FISH.

PERSONAL AUTHOR: WEINER, JACK

DESCRIPTOR: *BIBLIOGRAPHIES; *CHEMISTRY; EFFLUENTS; *FISH; *INDUSTRIAL WASTES; *PAPER INDUSTRY; *PULP INDUSTRY; *PULPING WASTES; *TOXICITY; *WASTE DISPOSAL; *WATER POLLUTION; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 67P. PRICE: $30.00

ABSTRACT: THIS BIBLIOGRAPHY CITES STUDIES INVESTIGATING THE TOXIC EFFECTS OF PULPING WASTES ON FISH. STUDIES INCLUDE LABORATORY AND FIELD EXPERIMENTS, AND INCLUDE A WIDE RANGE OF FISH SPECIES AND WASTE EFFLUENTS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW005130

PUBLICATION DATE: DEC 79

TITLE: STATUS ASSESSMENT OF TOXIC CHEMICALS: ARSENIC.

PERSONAL AUTHOR: BLACKWOOD, T. R.; AND OTHERS

DESCRIPTOR: *ARSENIC; AIR EMISSIONS; *ENVIRONMENTAL EFFECTS; HEALTH EFFECTS; PESTICIDES; POLLUTION; REGULATION; *STATUS ASSESSMENT; STANDARDS; TOXIC SUBSTANCES; *TOXIC CHEMICALS; *WATER POLLUTION CONTROL; *WATER POLLUTION

DESCRIPTIVE NOTE: 35P. PRICE: $6.00

ABSTRACT: THE PRODUCTION, CONSUMPTION, AND USES OF ARSENIC ARE DEALT WITH IN THIS REPORT. SOURCES OF ENVIRONMENTAL CONTAMINATION BY ARSENIC ARE IDENTIFIED AND THE CONSEQUENCES OF SUCH POLLUTION EXPLAINED. BETTER CONTROL METHODS ARE NEEDED FOR BOTH AIR EMISSIONS AND DISCHARGE OF ARSENIC CONTAINING WASTEWATER. PRESENT CONTROL TECHNOLOGIES ARE LISTED AS WELL AS AREAS IN WHICH FURTHER STUDY IS REQUIRED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW005133

PUBLICATION DATE: DEC 79

TITLE: STATUS ASSESSMENT OF TOXIC CHEMICALS: BENZIDINE.

PERSONAL AUTHOR: BLACKWOOD, T.R.; AND OTHERS

DESCRIPTOR: AIR EMISSIONS; *BENZIDINE; ENVIORNMENTAL EFFECTS; HEALTH EFFECTS; *STATUS ASSESSMENT; *TOXIC CHEMICALS; WATER POLLUTION

DESCRIPTIVE NOTE: 20P. PRICE: $6.00

ABSTRACT: THIS REPORT CONTAINS A STATUS ASSESSMENT OF THE AIR EMISSIONS, WATER POLLUTION, HEALTH EFFECTS, AND ENVIORNMENTAL SIGNIFICANCE OF BENZIDINE. THE STUDY WAS CONDUCTED TO PROVIDE A BETTER UNDERSTANDING OF THE DISTRIBUTION AND CHARACTERISTICS OF THIS POLLUTANT.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW005147

PUBLICATION DATE: AUG 79

TITLE: MULTIMEDIA ENVIRONMENTAL GOALS FOR ENVIRONMENTAL ASSESSMENT, VOLUME III. MEG CHARTS AND BACKGROUND INFORMATION.

PERSONAL AUTHOR: KINGSBURY, G. L.; AND OTHERS

DESCRIPTOR: AIR POLLUTION; *CONTAMINANTS; *ENVIRONMENTAL ASSESSMENT; *ORGANIC COMPOUNDS; *POLLUTION; *POLLUTION CONTROL; *WATER POLLUTION

DESCRIPTIVE NOTE: 482P. PRICE: $25.00

ABSTRACT: THIS VOLUME PROVIDES CHARTS AND BACKGROUND INFORMATION SUMMARIES FOR MULTIMEDIA ENVIRONMENTAL GOALS (M.E.G.) CATEGORIES 1-12 AND 13-26. THEY ADDRESS 586 ORGANIC COMPOUNDS. IN THE CONTEXT OF DENYING M.E.G.'S THE REPORT: (1) OFFERS PERSPECTIVES ON THE BROAD RANGE OF CONTAMINANTS WHOSE CONTROL IS OF VITAL INTEREST TO BOTH INDUSTRY AND THE PUBLIC, (2) FURTHER DEVELOPS AND DEFINES INDICATORS DESIGNATING CONTAMINANTS TO BE GIVEN PRIORITY CONSIDERATION FOR IMMEDIATE CONTROL AND FOR SUBSEQUENT RESEARCH, (3) BRINGS TOGETHER EXISTING AND EMERGING DATA IN A FORMAT EFFICIENT FOR USE IN ENVIRONMENTAL ASSESSMENT, AND (4) EXPLORES SAME BASIC METHODOLOGIES WHICH BOTH PROVIDE THE PRESENT GOALS, AND SUGGEST DIRECTIONS FOR REFINED METHODOLOGIES. M.E.G.'S ARE LEVELS OF SIGNIFICANT CONTAMINANTS OR DEGRADENTS (IN AMBIENT AIR, WATER, OR LAND OR IN EMISSION OF EFFLUENTS CONVEYED TO THE AMBIENT MEDIA) THAT ARE JUDGED TO BE (1) APPROPRIATE FOR PREVENTING CERTAIN NEGATIVE EFFECTS IN THE SURROUNDING POPULATIONS IN ECOSYSTEMS, OR (2) REPRESENTATIVE OF THE CONTROL LIMITS ACHIEVABLE THROUGH TECHNOLOGY. M.E.G.'S ARE PREDICTED FOR MORE THAN 650 POLLUTANTS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, OPERATIONS DIVISION, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW005152

PUBLICATION DATE: 80

TITLE: TOXIC AND HAZARDOUS WASTE DISPOSAL--VOLUME FOUR.

PERSONAL AUTHOR: POSJASEK, ROBERT B.

DESCRIPTOR: CHEMICAL WASTES; COMPOSTING; *HAZARDOUS WASTES; HEAVY METALS; INCINERATION; LAND DISPOSAL; LANDFILL; RESEARCH ACTIVITIES; RECLAMATION; SOLIDIFICATION PROCESSES; *TOXIC WASTES; UTILITIES; URANIUM TAILINGS; *WASTE DISPOSAL; *WASTE MANAGEMENT

DESCRIPTIVE NOTE: 313P.

ABSTRACT: THIS BOOK DEALS WITH THE PROBLEM OF DISPOSING OF HAZARDOUS WASTES. SEVERAL DISPOSAL OPTIONS ARE EXAMINED IN DETAIL. THESE OPTIONS INCLUDE: (1) LAND DISPOSAL, (2) SOLIDIFICATION/FIXATION PROCESS, (3) INCINERATION, (4) OCEAN INCINERATION, (5) MOLTEN SALT COMBUSTION, (6) COMPOSTING, (7) SEALED DISPOSAL, (8) DEEP-WELL DISPOSAL, AND (9) SOIL INCORPORATION.

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS INC., THE BUTTERWORTH GROUP, P. O. BOX 1425, ANN ARBOR, MI 48106

IRIS ACCESSION NUMBER: EW005153

PUBLICATION DATE: SEP 79

TITLE: HISTORY OF FEDERAL WATER RESOURCES PROGRAMS AND POLICIES, 1961-70.

PERSONAL AUTHOR: HOLMES, BEATRICE HORT

DESCRIPTOR: ENVIRONMENT; *FEDERAL PROGRAMS; *FEDERAL POLICIES; *HISTORY; *LEGISLATION; *PLANNING; *WATER RESOURCES; WATER POLLUTION CONTROL
DESCRIPTIVE NOTE: 331P. PRICE: $7.00

ABSTRACT: THIS PUBLICATION IS A COMPREHENSIVE ACCOUNT OF MAJOR FEDERAL PROGRAMS AND POLICIES RELATING TO CONSERVATION AND DEVELOPMENT OF WATER AND RELATED LAND RESOURCES, AND TO WATER POLLUTION CONTROL IN THE YEARS 1961 TO 1970. IT DISCUSSES MOST RELEVANT FEDERAL LEGISLATION AND THE FUNCTIONING OF FEDERAL AND FEDERALLY-ASSISTED PROGRAMS INVOLVING RESEARCH, PLANNING, CONSTRUCIION, AND REGULATION. ALSO DISCUSSED ARE NATIONAL, REGIONAL, AND LOCAL POLITICAL ISSUES RELATED TO WATER PROGRAMS AND POLICIES, PRESIDENTIAL, CONGRESSIONAL, AND AGENCY POLICYMAKING PROCESSES, AND ORIGINS OF THE ENVIRONMENTAL MOVEMENT AND ITS EFFECTS ON WATER RESOURCES PROGRAMS AND POLICIES.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON, D.C. 20402

IRIS ACCESSION NUMBER: EW005186

PUBLICATION DATE: AUG 80

TITLE: SEWER TRUNK LINES CAN BE TREATMENT FACILITIES.

PERSONAL AUTHOR: GREEN, MICHAEL; SHELEF, GEDALIAH

DESCRIPTOR: *DETENTION TIME; *FACILITIES; *MODELS; *SEWERS; SIMULATION; URBAN AREAS; WASTE DISPOSAL; *WASTEWATER TREATMENT; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 52-53P.

ABSTRACT: SEWAGE SYSTEMS COVERING CONSIDERABLE DISTANCES AND INCORPORATING LARGE-DIAMETER PIPES CHARACTERIZE THE RAPID URBAN GROWTH OF THE LAST FEW DECADES. THE POSSIBILITY EXISTS FOR USING THE LONG DETENTION TIMES CHARACTERISTIC OF WASTEWATER IN THE URBAN SEWER SYSTEM FOR TREATING THE SEWAGE, USING SEWER TRUNK LINES AS A PLUG-FLOW BIOLOGICAL REACTOR BY INTRODUCING AIR(OR OXYGEN) AND BIOLOGICAL SLUDGE TO THE SEWER SYSTEMS. THE KINETIC PARAMETERS AND THE OPTIMAL CONDITIONS HAVE BEEN DETERMINED FOR SUCH A SYSTEM, AND A SIMULATION MODEL HAS BEEN DEVELOPED.

AVAILABILITY: WATER AND SEWAGE WORKS, V127 N8

IRIS ACCESSION NUMBER: EW005187

PUBLICATION DATE: AUG 80

TITLE: MANAGING ENERGY AT WATER POLLUTION CONTROL FACILITIES.

PERSONAL AUTHOR: JACOBS, ALLAN

DESCRIPTOR: *ENERGY; *ENERGY CONSERVATION; EFFICIENCY; *FACILITIES; FUEL CONSUMPTION; *MANAGEMENT; *POLLUTION CONTROL; *WATER POLLUTION CONTROL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 61-62P.
ABSTRACT: DESCRIBES HOW ENERGY CONSUMPTION IN WASTEWATER TREATMENT PLANTS CAN BE REDUCED. CONSERVATION CAN BE ACHIEVED BY REDUCING CONSUMPTION AND INCREASING RECOVERY OF WASTE HEAT. ENERGY CONSUMPTION CAN BE REDUCED BY IMPROVING THE POWER FACTOR, REDUCING PEAK UTILITY-COMPANY ELECTRIC DEMAND, USING ENERGY-EFFICIENT EQUIPMENT, REDUCING INCINERATOR FUEL CONSUMPTION, AND IMPROVING PLANT CONTROL AND OPERATIONAL PROCEDURES.

AVAILABILITY: WATER AND SEWAGE WORKS, V127 N8

IRIS ACCESSION NUMBER: EW005188

PUBLICATION DATE: AUG 80

TITLE: GUIDE TO COMPARATIVE TREATMENT MODE EFFICIENCIES.

PERSONAL AUTHOR: BANERJI, KHANKHA; O'CONNOR, JOHN T.

DESCRIPTOR: *DESIGN; *ENERGY; *ENERGY CONSERVATION; EFFICIENCY; EQUIPMENT; *OPERATIONS (WASTEWATER); RECYCLING; *SLUDGE; *UTILITIES; *WASTEWATER; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 32-33P.

ABSTRACT: IN THE FUTURE, THE DESIGNERS OF WASTEWATER TREATMENT PLANTS MUST PAY PARTICULAR ATTENTION TO THE DESIGN OF THE MAJOR ENERGY INTENSIVE PROCESS, SUCH AS WASTEWATER

PUMPING, SECONDARY BIOLOGICAL WASTEWATER SYSTEMS, AND SLUDGE-TREATMENT PROCESSES. A REDUCTION IN ENERGY CONSUMPTION THROUGH THE PROPER CHOICE OF EQUIPMENT IN THESE PROCESSES CAN MORE THAN OFFSET THE ENERGY USAGE OF ALL OTHER PROCESSES IN THE TREATMENT SCHEME. ENERGY RECOVERY FROM SLUDGE CAN BE AN IMPORTANT FACTOR IN THE OVERALL PLANT ENERGY BALANCE AND MUST BE EVALUATED VERY CAREFULLY.

AVAILABILITY: WATER AND SEWAGE WORKS, V127 N8

IRIS ACCESSION NUMBER: EW005189

PUBLICATION DATE: AUG 80

TITLE: ECONOMICS JUSTIFIES COMPUTER-CONTROL FEED.

PERSONAL AUTHOR: CHING, DAVID L.

DESCRIPTOR: *AUTOMATION; *COMPUTERS; *COMPUTER CONTROL; *COST EFFECTIVENESS; *ECONOMICS; ENERGY CONSERVATION; *FACILITIES; *UTILITIES; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 36-37P.

ABSTRACT: DISCUSSED ARE THE ECONOMICS AND OPERATIONAL PROCESSES TO DETERMINE THE MOST COST-EFFECTIVE MIX OF INSTRUMENTATION AND CONTROLS. THE EMPHASIS IS ON THE ECONOMIC AND TECHNICAL FEASIBILITY OF THE SYSTEM CONFIGURATION ON THE BASIS OF EQUIVALENT ANNUAL COSTS. THE RESULTS INDICATE THAT COMPUTER CONTROL OF WATER AND WASTEWATER TREATMENT PROCESSES IS JUSTIFIED FOR ITS ENERGY AND OPERATIONAL SAVINGS.

AVAILABILITY: WATER AND SEWAGE WORKS, V127 N8

IRIS ACCESSION NUMBER: EW005190

PUBLICATION DATE: AUG 80

TITLE: WASTEWATER TREATMENT FOR PHOSPHORUS REMOVAL.

PERSONAL AUTHOR: OCKERSHAUSEN, RICHARD W.

DESCRIPTOR: *ALUM; *CHEMICAL PRECIPITATION; *NUTRIENT REMOVAL; *PHOSPHORUS; *PHOSPHATES; *UTILITIES; *WASTEWATER; *WASTEWATER TREATMENT; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 40-41P.

ABSTRACT: CHEMICAL PRECIPITATION USING ALUM FOR PHOSPHORUS REMOVAL IN WASTEWATER TREATMENT PLANTS HAS A PROVEN TEN YEAR RECORD. ALSO A NUMBER OF INPLANT APPLICATIONS STUDIES HAVE SHOWN SUCH ADDED BENEFITS AS REDUCED BIOCHEMICAL OXYGEN DEMAND AND SUSPENDED SOLIDS. THE USE OF ALUM FOR PHOSPHORUS REDUCTION IS INDICATED BY ITS SUCCESS AT AN ACTIVATED-SLUDGE, AN ACTIVATED-SLUDGE FOLLOWED BY RAPID-SAND-FILTRATION, A TRICKLING-FILTER, AND A PRIMARY TREATMENT PLANT.

AVAILABILITY: WATER AND SEWAGE WORKS, V127 N8

IRIS ACCESSION NUMBER: EW005191

PUBLICATION DATE: AUG 80

TITLE: ELECTRONIC INSTRUMENTATION ADDS DIMENSIONS TO METERING.

PERSONAL AUTHOR: WEINBERGER, EUGENE M.

DESCRIPTOR: *ELECTRONIC CONTROL; *ELECTRONIC INSTRUMENTATION; FACILITIES; *INSTRUMENTATION; *UTILITIES; *WASTEWATER COLLECTION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 46-47,57P.

ABSTRACT: ARTICLE DESCRIBES TODAYS WASTEWATER ELECTRONIC CONTROL INSTRUMENTATION. IN THE EVENT OF A LINE BREAK, THE OPERATOR IS IMMEDIATELY ALERTED TO AN EXCESSIVE FLOW THROUGH THE SYSTEM. THE ELECTRONIC SYSTEM CAN ALSO RECORD THE TIME AND MAGNITUDE OF THE BREAK, ACTUATE ALARM SYSTEMS AT BOTH LOCAL OR REMOTE LOCATIONS, AND PROVIDE A VARIETY OF OTHER SIGNALS TO INITIATE CORRECTIVE ACTION.

AVAILABILITY: WATER AND SEWAGE WORKS, V127 N8

IRIS ACCESSION NUMBER: EW005260

PUBLICATION DATE: 80

TITLE: ACTIVATED CARBON ADSORPTION OF ORGANICS FROM THE AQUEOUS PHASE. VOLUME I.

PERSONAL AUTHOR: SUFFET, IRWIN H.; MCGUIRE, MICHAEL J.

DESCRIPTOR: *ACTIVATED CARBON ADSORPTION; *CHEMISTRY; *CARBON; *ORGANIC COMPOUNDS; *PILOT STUDIES; *RESEARCH; SURFACE CHEMISTRY

DESCRIPTIVE NOTE: 510P.

ABSTRACT: THIS VOLUME DEALS MAINLY WITH THE THEORETICAL ASPECTS OF ACTIVATED CARBON ADSORPTION. THE PAPERS INCLUDED REPRESENT A MIXTURE OF REVIEW PAPERS, LABORATORY RESEARCH REPORTS, PILOT PLANT CASE HISTORIES AND DISCUSSIONS OF GENERAL METHODOLOGY.

AVAILABILITY: ARBOR SCIENCE PUBLISHERS, INC., P.O. BOX 1425, ANN ARBOR, MICHIGAN 48106

IRIS ACCESSION NUMBER: EW005261

PUBLICATION DATE: AUG 79

TITLE: SUBPOTABLE WATER REUSE AT ARMY FIXED INSTALLATIONS: A SYSTEMS APPROACH. VOLUME I.

PERSONAL AUTHOR: SCHMIDT, CURTIS J.; AND OTHERS

DESCRIPTOR: CHEMICAL ANALYSIS; COMPUTER MODELING; INDUSTRIAL WASTEWATER; IRRIGATION; *MODELS; *OPERATIONS (WASTEWATER); *PLANNING; POLLUTION; *RECYCLING; *SUBPOTABLE WATER; *U.S. ARMY; *WASTEWATER TREATMENT; WATER QUALITY; *WATER REUSE

DESCRIPTIVE NOTE: 166P.

ABSTRACT: THIS REPORT CONCERNS THE TREATMENT AND REUSE OF WASTEWATER AT FIXED ARMY INSTALLATIONS. THE OBJECTIVE WAS TO PROVIDE A TOOL THAT COULD BE USED BY THE ARMY IN ASSESING THE POTENTIAL FOR WATER REUSE AT ALL THEIR FIXED FACILITIES, IN ISOLATING THOSE BASES WITH THE BEST REUSE POTENTIAL, AND IN EVALUATING CONCEPTUAL REUSE SCHEMES AT THOSE BASES. ALL MAJOR ARMY ACTIVITIES INVOLVING WATER AND WASTEWATER WERE RESEARCHED AND DESCRIBED. IN ADDITION, A THREE-TIER WATER REUSE MODEL WAS DEVELOPED THAT LEADS THROUGH THREE PHASES OF EVALUATION CULMINATING IN THE USE OF A SOPHISTICATED COMPUTER MODEL.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, OPERATIONS DIVISION, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW005263

PUBLICATION DATE: 79

TITLE: MSIS TRAINING. FINAL REPORT B.

DESCRIPTOR: ADULT LEARNING; *COMPUTERS; *DRINKING WATER; *ENVIRONMENTAL PROTECTION AGENCY; *INFORMATION SYSTEMS; *INSTRUCTION; *TRAINING PROGRAMS; TEAM TRAINING; *WATER SUPPLY

DESCRIPTIVE NOTE: 66P.

ABSTRACT: THIS REPORT DESCRIBES THE PROCESS AND EFFECTIVENESS OF THE TRAINING PROGRAM DEVELOPED BY THE SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER FOR THE OFFICE OF DRINKING WATER, ENVIRONMENTAL PROTECTION AGENCY, TO AID STATE AND REIONAL PERSONNEL IN THE INSTALLATION AND USE OF THE MODEL STATE INFORMATION SYSTEM (M.S.I.S.). THIS TRAINING PROGRAM WAS DEVELOPED USING THEORETICAL INFORMATION CONCERNING ADULT LEARNING, AND CONSISTED OF A FIVE-DAY, TEAM-TAUGHT, ON-SITE PRESENTATION IN 26 STATES AND REGIONS. TRAINEE LEARNING WAS EVALUATED FROM BOTH A SUBJECTIVE AND OBJECTIVE POINT OF VIEW. THESE DATA CLEARLY SHOWED THE EFFECTIVENESS OF THE TRAINING PROGRAM IN ACHIEVING ITS GOAL OF INCREASING THE M.S.I.S. CAPABILITIES OF TRAINEES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, OPERATIONS DIVISION, SPRINGFIELD, VA 22161

INSTITUTION NAME: UNIVERSITY OF CINCINNATI COMPUTER CENTER.

IRIS ACCESSION NUMBER: EW005461

PUBLICATION DATE: JUL 79

TITLE: REPORT TO THE CONGRESS ON THE COORDINATION OF FEDERAL ENERGY CONSERVATION PROGRAMS INVOLVING STATE AND LOCAL GOVERNMENTS.

DESCRIPTOR: APPROPRIATE TECHNOLOGY; *CONSERVATION; EDUCATIONAL PROGRAMS; *ENERGY CONSERVATION; FEDERAL GOVERNMENT; *FEDERAL LEGISLATION; FEDERAL STATE RELATIONSHIPS; GOVERNMENT; *GOVERNMENT ROLE; SOLAR ENERGY; WASTE DISPOSAL

DESCRIPTIVE NOTE: 107P. PRICE: PRINTED COPY: $6.50, MICROFICHE: $3.00

ABSTRACT: THE MAIN BODY OF THIS REPORT DESCRIBES IN DETAIL THE COORDINATION EFFORTS RELATING TO ALL ENERGY CONSERVATION PROGRAMS OF VARIOUS FEDERAL AGENCIES THAT INVOLVE STATE AND LOCAL GOVERNMENTS. EACH OF THE 58 PROGRAM DESCRIPTIONS IS DIVIDED INTO FOUR PARTS: (A) BACKGROUND, (B) NEED FOR COORDINATION, (C) CURRENT COORDINATION EFFORTS, AND (D) PLANNED COORDINATION EFFORTS. PART A BRIEFLY DESCRIBES THE PROGRAM, INCLUDING ITS LEGISLATIVE HISTORY, GOALS AND OBJECTIVES, FUNDING LEVELS, AND A DESCRIPTION OF THE INVOLVEMENT OF STATE AND LOCAL GOVERNMENTS IN THE PROGRAM. PART B DESCRIBES THE SPECIFIC REASONS FOR WHICH PROGRAM COORDINATION IS NEEDED. PART C SUMMARIZES THE DIFFERENT LEVELS OF COORDINATION CURRENTLY IN EFFECT. PART D DESCRIBES FUTURE COORDINATION EFFORTS WHICH ARE BEING PLANNED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, OPERATION DIVISION, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

INSTITUTION NAME: U.S. DEPARTMENT OF ENERGY.

IRIS ACCESSION NUMBER: EW005485

PUBLICATION DATE: SEP 80

TITLE: OPERATOR TRAINING AND PLANT START-UP FOR A REGIONAL WATER RECLAMATION PROJECT.

PERSONAL AUTHOR: GUNN, GEORGE A.; AND OTHERS

DESCRIPTOR: COSTS; ENGINEERING; JOB TRAINING; *OPERATIONS (WASTEWATER); *OPERATOR TRAINING; *PERSONNEL; *TRAINING; *TRAINING PROGRAMS; VIRGINIA; *WASTEWATER TREATMENT; WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 2351-2366P.

ABSTRACT: THE PLANNED AND ACTUAL PROGRAMS DEVELOPED BY THE CONSULTING ENGINEER FOR THE START-UP AND OPERATOR TRAINING AT THE UPPER OCCOQUAN SEWAGE AUTHORITY (VIRGINIA) REGIONAL ADVANCED WASTEWATER RECLAMATION PROJECT ARE DETAILED. SERIOUS CONSTRUCTION DELAYS AFFECTED THE START-UP PROGRAMS AS WELL AS THE TRAINING PROGRAM. THE TRAINING OF KEY STAFF, ORIGINALLY PLANNED TO TAKE 450 HOURS, HAD TO BE REDUCED TO 300 HOURS. A GENERAL STAFF TRAINING PROGRAM OF 630 HOURS WAS

IMPLEMENTED. THE PLANT WAS REQUIRED TO START TREATING WASTEWATER BEFORE ALL AUXILIARY FACILITIES WERE COMPLETED. HOWEVER, EARLY OPERATIONAL RESULTS WERE GOOD AND THE PLANT HAS CONTINUED TO PERFORM SATISFACTORILY.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V52 N9

IRIS ACCESSION NUMBER: EW005486

PUBLICATION DATE: SEP 80

TITLE: ANAEROBIC PHENOL BIOKINETICS.

PERSONAL AUTHOR: NEUFELD, RONALD D.; AND OTHERS

DESCRIPTOR: ANAEROBIC DEGRADATION; *ANAEROBIC PROCESSES; *BIODEGRADATION; CHEMISTRY; COAL WASTES; COKE; INDUSTRIAL WASTES; *KINETICS; LIMNOLOGY; *PHENOL; *WASTEWATER TREATMENT; WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 2367-2377P.

ABSTRACT: A LABORATORY INVESTIGATION WAS CONDUCTED TO GENERATE PRELIMINARY DATA ON THE USE OF ANAEROBIC BACTERIA FOR THE REDUCTION OF HIGH-STRENGTH PHENOLIC WASTEWATERS SUCH AS THOSE FROM COAL GASIFICATION. SUCH REDUCTION WAS SHOWN FEASIBLE, WITH SUBSTRATE INHIBITION DOMINATING AT PHENOL LEVELS ABOVE 686 MGLL. A MATHEMATICAL MODEL IS PRESENTED THAT CORRELATES THE RATE OF PHENOL REDUCTION TO AMBIENT PHENOL CONCENTRATION. REDUCTION WAS ALSO LINKED WITH CHANGES IN ALKALINITY, VOLATILE ACIDS, INTERMEDIATES, AND CELL YIELD. THE STUDY CONCLUDES THAT ANAEROBIC BIODEGRADATION CONSTITUTES AN ALTERNATIVE PROCESS FOR PHENOL REDUCTION.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V52 N9

IRIS ACCESSION NUMBER: EW005487

PUBLICATION DATE: SEP 80

TITLE: EFFECTS OF CADMIUM ON THE COMPLETELY MIXED ACTIVATED SLUDGE PROCESS.

PERSONAL AUTHOR: WEBER, SCOTT A.; SHERRARD, JOSEPH H.

DESCRIPTOR: *ACTIVATED SLUDGE; *CADMIUM; CHEMICAL OXYGEN DEMAND; *HEAVY METALS; INDUSTRIAL EFFLUENTS; LABORATORY PROCEDURES; *NITRIFICATION; *TOXICITY; TOXIC SUBSTANCES; WASTEWATER TREATMENT; WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 2378-2388P.

ABSTRACT: A LABORATORY STUDY WAS CONDUCTED TO MEASURE THE EFFECT OF CADMIUM ON CHEMICAL OXYGEN DEMAND REMOVAL EFFICIENCY, DEGREE OF NITRIFICATION, AND ON THE KINETIC COEFFICIENTS Y MAX AND D. DATA WERE OBTAINED FROM THE OPERATION OF BENCH SCALE REACTORS WHICH WERE FED 0, 5, 15, AND 9.98MGLL SOLUTIONS OF CADMIUM. MEAN CELL RESIDENCE TIME WAS USED AS THE PRIMARY OPERATIONAL CONTROL PARAMETER AND VALUES BETWEEN APPROXIMATELY 3 AND 15 DAYS WERE USED TO OBTAIN DATA. THE CHEMICAL OXYGEN DEMAND REMOVAL EFFICIENCIES FOR THE REACTORS CONTAINING CADMIUM WERE SLIGHTLY LESS THAN THOSE OBTAINED FOR THE CONTROL REACTOR. NO DISTINGUISHABLE DIFFERENCE WAS OBTAINED FOR THE KINETIC COEFFICIENTS YMAX AND B. NITRIFICATION, HOWEVER, WAS FOUND TO BE SIGNIFICANTLY ALTERED IN THE PRESENCE OF CADMIUM. RESULTS CLEARLY SHOW THAT THE DEGREE OF NITRIFICATION DECREASED AS CADMIUM CONCENTRATIONS INCREASED AT A GIVEN MEAN CELL RESIDENCE TIME.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V52 N9

IRIS ACCESSION NUMBER: EW005488

PUBLICATION DATE: SEP 80

TITLE: EXPERIENCE WITH BELT FILTER PRESSES IN THE PULP AND PAPER INDUSTRY.

PERSONAL AUTHOR: MINER, REID

DESCRIPTOR: BELTS; *DEWATERING; EQUIPMENT; EQUIPMENT EVALUATION; EQUIPMENT MAINTENANCE; *FILTRATION; OPERATOR REQUIREMENTS; *PAPER MILLS; *SLUDGE; SLUDGE DEWATERING; WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 2389-2395P.

ABSTRACT: A RECENT REVIEW OF BELT FILTER PRESSING IN THE PULP AND PAPER INDUSTRY HAS REVEALED A TOTAL OF 24 OPERATING INSTALLATIONS. CONDITIONING REQUIREMENTS, MACHINE CAPABILITIES, AND CAKE CONSISTENCIES HAVE BEEN FOUND TO VARY WITH THE NATURE OF THE SLUDGE SOLIDS, FEED CONSISTENCIES, AND MACHINE CONFIGURATIONS. ALTHOUGH MECHANICAL RELIABILITY HAS BEEN VARIABLE, THE ONLY MAJOR CONTINUING OPERATING PROBLEM COMMON TO MOST OF THE UNITS HAS BEEN BELT LIFE. A NUMBER OF COMMONLY APPLIED MEASURES HAVE EXTENDED REPRESENTATIVE BELT LIFE TO 3 OR 4 MONTHS. IN THE ABSENCE OF FREQUENT MECHANICAL PROBLEMS OR SEVERE SLUDGE VARIABILITY, TYPICAL OPERATOR ATTENTION REQUIREMENTS HAVE BEEN FOUND TO BE 1-2 HOURS PER SHIFT.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V52 N9

IRIS ACCESSION NUMBER: EW005489

PUBLICATION DATE: SEP 80

TITLE: STORMWATER POLLUTANT LOAD-RUNOFF RELATIONSHIPS.

PERSONAL AUTHOR: BEDIENT, PHILIP B.; AND OTHERS

DESCRIPTOR: *MATHEMATICAL MODELS; *RUNOFF WATERS; *STORMWATER; TEXAS; *URBAN AREAS; *URBAN RUNOFF; WATER POLLUTION CONTROL; WATER QUALITY

DESCRIPTIVE NOTE: 2396-2404P.

ABSTRACT: RESULTS FROM A COMPREHENSIVE STORMWATER MONITORING PROGRAM AT FOUR SITES IN HOUSTON, TEXAS, INDICATE GOOD CORRELATIONS BETWEEN TOTAL STORM LOADS AND TOTAL RUNOFF VOLUME AND BETWEEN PEAK MASS FLOWS AND PEAK FLOW. ANTECEDENT RAINFALL WAS FOUND TO BE INSIGNIFICANT FOR PREDICTING STORMWATER POLLUTANT LOADS. A METHOD IS PRESENTED FOR PREDICTING POLLUTANT MASS FLOW CURVES USING KNOWN HYDROGRAPHS AND AN EXPONENTIAL WASHOFF EQUATION. THE INITIAL CONCENTRATION CO IS SELECTED USING THE PEAK MASS FLOW-PEAK FLOW RELATIONSHIP. THE EFFECT OF STORM SAMPLING FREQUENCY ON THE ACCURACY OF TOTAL STORM LOAD PREDICTION IS EVALUATED WITH THE EXTENSIVE DATA BASE AVAILABLE.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V52 N9

IRIS ACCESSION NUMBER: EW005490

PUBLICATION DATE: SEP 80

TITLE: LOW-COST FILTER SYSTEM MEETS DRINKING WATER STANDARDS.

PERSONAL AUTHOR: CHAPMAN, ROBERT L.; BENOIT, GERALD R.

DESCRIPTOR: *AGRICULTURAL WATER USE; CALIFORNIA; CASE STUDIES; COST EFFECTIVENESS; DESIGN; *DRINKING WATER; FILTERS; *FILTER SYSTEMS; IRRIGATION; *OPERATIONS (WATER); PILOT PLANTS; *WATER QUALITY; *WATER SUPPLY
DESCRIPTIVE NOTE: 102-104P.

ABSTRACT: THIS CASE STUDY EXAMINES THE DECISION BY THE BELLA VISTA (CA) WATER DISTRICT TO INSTALL FILTRATION FACILITIES TO UPGRADE THE RAW WATER QUALITY. THE GOAL WAS TO DELIVER DOMESTIC QUALITY WATER TO ITS COMBINATION OF DOMESTIC AND AGRICULTURAL CUSTOMERS AT A COST COMPATIBLE WITH IRRIGATION WATER USE. A HIGH-PRESSURE DIRECT FILTER SYSTEM WAS CHOSEN. THE EXPERIENCE AND RESULTS GAINED IN THE FIRST TWO YEARS OF OPERATION HAVE PROVEN THE FUNDAMENTAL DESIGN TO BE A GOOD ONE. LOW OPERATION AND MAINTENANCE COSTS, IN ADDITION TO THE LOW CAPITAL COST, HAVE MADE THE SYSTEM COST-EFFICIENT, WITH MINIMUM LABOR, POWER, CHEMICAL, AND REQUIRED MAINTENANCE EXPENDITURES.

AVAILABILITY: PUBLIC WORKS, V111 N9

IRIS ACCESSION NUMBER: EW005491

PUBLICATION DATE: SEP 80

TITLE: REVEGETATION OF MINED LAND USING WASTEWATER SLUDGE.

PERSONAL AUTHOR: SOPPER, WILLIAM E.; KERR, SONJA N.

DESCRIPTOR: *AGRICULTURE; *CASE STUDIES; EQUIPMENT; *LAND APPLICATION; *LAND RECLAIMATION; PENNSYLVANIA; *REVEGETATION; SLUDGE; SLUDGE DISPOSAL; STRIP-MINED LANDS; *WASTE DISPOSAL; *WASTEWATER SLUDGE

DESCRIPTIVE NOTE: 114-116P.

ABSTRACT: THIS ARTICLE DESCRIBES THE DEMONSTRATION PROJECTS IN PENNSYLVANIA WHERE WASTEWATER SLUDGE HAS BEEN USED ON STRIPMINED LAND. RESULTS OF A TWO-YEAR STUDY MONITORING SYSTEM INDICATE THAT THERE WAS NO DETRIMENTAL EFFECTS ON THE VEGETATION, SOIL, OR GROUNDWATER QUALITY DUE TO THE SLUDGE APPLICATION BUT INSTEAD THERE WAS A FOUR-FOLD INCREASE IN VEGETATION HEIGHT AND APPROXIMATELY A SIX-FOLD INCREASE IN DRY MATTER PRODUCTION OVER THE FIRST YEAR.

AVAILABILITY: PUBLIC WORKS, V111 N9

IRIS ACCESSION NUMBER: EW005492

PUBLICATION DATE: SEP 80

TITLE: EFFECTIVE WASTEWATER MANAGEMENT PLANNING FOR SMALL COMMUNITIES--PART 2.

PERSONAL AUTHOR: BARROR, RICHARD F.; TCHOBANOGOUS, GEORGE

DESCRIPTOR: COST EFFECTIVENESS; FEDERAL PROGRAMS; LABOR UTILIZATION; LAND UTILIZATION; *MANAGEMENT; OPERATIONS (WATER); *PLANNING; POLLUTION CONTROL; *RURAL AREAS; *SMALL COMMUNITIES; STANDARDS; *WASTEWATER MANAGEMENT; WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 170-174P.
ABSTRACT: IN THE SECOND OF THIS TWO-PART ARTICLE, KEY INNOVATIVE WASTEWATER MANAGEMENT PLANNING CONCEPTS FOR SMALL COMMUNITIES ARE DISCUSSED. TOPICS INCLUDE EFFECTIVE PLANNING APPROACHES, EFFECTIVE UTILIZATION OF LABOR, INSTITUTIONAL CHANGES, AND COST-EFFECTIVENESS. THE CHARACTERISTICS AND PLANNING CONSIDERATIONS FOR SMALL COMMUNITIES WERE THE SUBJECT OF PART 1, AS WELL AS THE IMPACT OF FEDERAL REGULATIONS AND CONSTRUCTION GRANTS PROGRAM.

AVAILABILITY: PUBLIC WORKS, V111 N9

IRIS ACCESSION NUMBER: EW005493

PUBLICATION DATE: SEP 80

TITLE: PLAN PREVENTATIVE MAINTENANCE OF PLANTS AT THE RIGHT TIME.

PERSONAL AUTHOR: METCALF, RICHARD R.

DESCRIPTOR: CONSTRUCTION; *DESIGN; EQUIPMENT (EVALUATION); *FACILITIES; *MAINTENANCE; MANAGEMENT; *OPERATIONS (WATER); *PLANNING; PLANT OPERATORS; RECORDKEEPING; *WATER TREATMENT

DESCRIPTIVE NOTE: 128-129P.

ABSTRACT: THIS ARTICLE CONCLUDES THAT PREVENTATIVE MAINTENANCE OF WATER AND WASTEWATER TREATMENT PLANTS SHOULD

BE CONSIDERED DURING DESIGN AND CONSTRUCTION PHASES, NOT ONLY AFTER THE PLANT IS COMPLETE. IT IS RECOMENDED THAT PLANT OPERATORS BE AT THE CONSTRUCTION SITE AND REVIEW PLANT PLANS SO THAT THEY CAN AID IN THE REDUCTION OF COSTLY FUTURE MAINTENANCE PROBLEMS.

AVAILABILITY: PUBLIC WORKS, V111 N9

IRIS ACCESSION NUMBER: EW005494

PUBLICATION DATE: SEP 80

TITLE: TREATMENT STRUCTURE SUPPORT OVER DIFFICULT SOILS.

PERSONAL AUTHOR: HUNT, HAL W.

DESCRIPTOR: CONSTRUCTION; *DESIGN; *EQUIPMENT; *FACILITIES; FOUNDATIONS; INSTALLATION; *PILING; STRUCTURAL DESIGN; *SUPPORT STRUCTURES; WATER STORAGE; *WATER TREATMENT

DESCRIPTIVE NOTE: 131-134P.

ABSTRACT: THIS ARTICLE DISCUSSES THE VARIOUS TYPES OF PILES USED TO SUPPORT WATER TREATMENT AND STORAGE STRUCTURES. BOTH DISPLACEMENT AND NON-DISPLACEMENT PILES ARE EXAMINED WITH SPECIFIC ATTENTION FOCUSSED ON TIMBER, CLOSED END PIPE, PRECAST CONCRETE, OPEN-END PIPE, AUGERED HOLE, OR H-PILES. INFORMATION IS PROVIDED CONCERNING INVESTIGATION OF FOUNDATIONS AND SUPERVISION OF CONSTRUCTION.

AVAILABILITY: PUBLIC WORKS, V111 N9

IRIS ACCESSION NUMBER: EW005500

TITLE: TRAINING MATERIALS FOR PESTICIDE APPLICATOR CERTIFICATION.

PERSONAL AUTHOR: RUPPEL, R. F.

DESCRIPTOR: *APPLICATION; *AUDIOVISUAL AIDS; *CERTIFICATION; CHEMISTRY; ENVIRONMENT; *INSTRUCTIONAL MATERIALS; *PESTICIDES; *PESTICIDE FORMULATIONS; PESTICIDE POISONING; PEST CONTROL; *SAFETY; TAPES

DESCRIPTIVE NOTE: 72P.

ABSTRACT: THESE TRAINING MATERIALS INCLUDE SLIDES, TAPES, SAMPLE QUESTIONS AND AN EXPLANATION OF THE CERTIFICATION REGULATIONS. TOPICS COVERED INCLUDE PESTICIDE REGULATIONS, PESTICIDE FORMULATIONS, PESTICIDE POISONING, PESTICIDE LABELS, APPLICATION SAFETY AND PESTICIDES IN THE ENVIORNMENT.

AVAILABILITY: R. F. RUPPEL, DEPARTMENT OF ENTOMOLOGY, MICHIGAN STATE UNIVERSITY EAST LANSING, MI 48823

IRIS ACCESSION NUMBER: EW005505

PUBLICATION DATE: 76

TITLE: USING PESTICIDES SAFELY #217.

DESCRIPTOR: APPLICATION; CLOTHING; EQUIPMENT; LEGISLATION; *PESTICIDES; *PROTECTIVE CLOTHING; POISONS; *SAFETY; *TOXICITY; TRANSPORTATION; WASTE DISPOSAL

DESCRIPTIVE NOTE: 17P. PRICE: $.25

ABSTRACT: THIS HANDBOOK DEALS WITH THE PROBLEM OF USING PESTICIDES SAFELY. TOPICS INCLUDE PESTICIDE LEGISLATION, TOXICITY, ROUTES OF ENTRY, PESTICIDE FORMULATIONS, PROTECTIVE CLOTHING AND SAFETY EQUIPMENT. ADVICE IS ALSO GIVEN ON HOW TO MIX, APPLY, DISPOSE, STORE AND TRANSPORT PESTICIDES SAFELY.

AVAILABILITY: PENNSYLVANIA STATE UNIVERSITY, COLLEGE OF AGRICULTURE EXTENSION SERVICE, UNIVERSITY PARK, PA 16802

IRIS ACCESSION NUMBER: EW005506

PUBLICATION DATE: AUG 77

TITLE: ALABAMA'S RECOMMENDED FOREST MANAGEMENT GUIDELINES TO CONTROL NON-POINT POLLUTION FROM SILVICULTURAL PRACTICES.

DESCRIPTOR: *ALABAMA; *FORESTRY; *MANAGEMENT; *NONPOINT POLLUTION; *OPERATIONS (FORESTRY); *SILVICULTURE; *STREAMS; *WATER QUALITY; WATER POLLUTION; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 25P. FREE

ABSTRACT: THESE RECOMMENDED GUIDELINES ENCOURAGE THE USE OF MANAGEMENT PRACTICES WHICH ARE ECONOMICALLY FEASIBLE FOR THE PRIVATE FOREST LANDOWNER IN ALABAMA, AND WHICH AT THE SAME TIME, WILL CONTROL WATER POLLUTION FROM NON-POINT SILVICULTURAL SOURCES. TOPICS COVERED INCLUDE: WATER QUALITY PRINCIPLES, MANAGEMENT ZONES AND FOREST OPERATIONS (SUCH AS ACCESS, HARVESTING, SITE PREPARATION, SURFACE WATER MANAGEMENT AND FOREST CHEMICAL UTILIZATION).

AVAILABILITY: ALABAMA'S FORESTRY COMMISSION, 513 MADISON AVE., MONTGOMERY, AL 36130

IRIS ACCESSION NUMBER: EW005508

PUBLICATION DATE: DEC 79

TITLE: DISSOLVED OXYGEN: WATER QUALITY STANDARDS CRITERIA DIGEST A COMPILATION OF STATE/FEDERAL CRITERIA.

DESCRIPTOR: AQUATIC LIFE; *DISSOLVED OXYGEN; FEDERAL STANDARDS; *OXYGEN; *REGULATIONS; STATE STANDARDS; STANDARDS; *WATER QUALITY

DESCRIPTIVE NOTE: 20P.

ABSTRACT: THIS DIGEST WAS COMPILED TO PROVIDE GENERAL INFORMATION TO THE PUBLIC AS WELL AS TO FEDERAL, STATE, AND LOCAL OFFICIALS. IT CONTAINS EXCERPTS QUALITY STANDARDS ESTABLISHING POLLUTANT SPECIFIC CRITERIA FOR NAVIGABLE SURFACE WATERS. THE STANDARDS PROGRAM, A NATIONWIDE STRATEGY FOR SURFACE WATER QUALITY MANAGEMENT, CONTAINS TWO MAJOR ELEMENTS: THE USE (RECREATION, DRINKING WATER, FISH AND WILDLIFE PROPAGATION, INDUSTRIAL, OR AGRICULTURAL) TO BE MADE OF THE NAVIGABLE WATER AND CRITERIA TO PROTECT THESE USES.

AVAILABILITY: UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF WATER, PLANNING AND STANDARD, WASHINGTON, D.D. 20460

IRIS ACCESSION NUMBER: EW005509

PUBLICATION DATE: 80

TITLE: HANDBOOK OF PROCEDURES: CONSTRUCTION GRANTS PROGRAM FOR MUNICIPAL WASTEWATER TREATMENT WORKS (SECOND EDITION).

DESCRIPTOR: *CONSTRUCTION; *GRANTS; *GRANTS PROGRAMS; *GRANT PROCESSING; HANDBOOKS; *MANAGEMENT; *MUNICIPAL WASTEWATER; *PLANNING; *REGIONAL PROGRAMS; *STATE PROGRAMS; *WASTEWATER TREATMENT; WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 250P.

ABSTRACT: THIS HANDBOOK IDENTIFIES AND EXPLAINS THE MANY PROCEDURES TO BE FOLLOWED BY THOSE IN THE REGIONAL OFFICES AND THE STATES WHO ARE RESPONSIBLE FOR MUNICIPAL WASTEWATER TREATMENT PROJECTS FROM THEIR CONCEPTION TO COMPLETION. THE PROCEDURES ARE PRESENTED SEQUENTIALLY AND ARE EXPRESSED IN LOGICAL AND CONCISE TERMS. THE OPERATIONAL TASKS DESCRIBED ARE APPLICABLE TO THE PROGRAMS AS A WHOLE AND ARE INTENDED TO SERVE AS AN OPERATIONAL STANDARD SO THAT THIS COMPLEX, MULTIFACETED CONSTRUCTION GRANTS PROGRAM CAN MOVE FORWARD AS A NATIONAL PROGRAM, UNIFORMLY ADMINISTERED.

AVAILABILITY: UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF WATER, PROGRAM OPERATIONS, WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW005510

PUBLICATION DATE: 80

TITLE: THE ASBESTOS PARTICLE ATLAS.

PERSONAL AUTHOR: MCCRONE, WALTER C.

DESCRIPTOR: *ASBESTOS; CRYSTALLOGRAPHY; *HAZARDOUS MATERIALS; *IDENTIFICATION; LABORATORY TESTING; *PHOTOMICROGRAPHY; *POLLUTANTS; PUBLIC HEALTH; TALC; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 120P.

ABSTRACT: THIS PHOTOMICROGRAPHIC ATLAS WAS PREPARED TO ASSIST LABORATORIES CHARGED WITH THE ANALYSIS OF BULK INSULATION SAMPLES FROM SCHOOLS AND PUBLIC BUILDINGS. SECTIONS INCLUDE: DETAILED ANALYSIS OF THE PROPERTIES OF ASBESTOS, CRYSTALLOGRAPHIC BACKGROUND, IDENTIFICATION OF ASBESTOS, AND QUANTIFICATION. ALSO INCLUDED ARE 411 COLOR PRINTS OF THE SIX ASBESTIFORM MINERALS AND OTHER MATERIALS COMMONLY ENCOUNTERED IN BULK SAMPLE ANALYSIS. THE APPENDICES INCLUDE INFORMATION ON PHOTOMICROGRAPHY, AND PURCHASING A MICROSCOPE.

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS, INC., 230 COLLINGWOOD, P.O. BOX 1425, ANN ARBOR, MI 48106

IRIS ACCESSION NUMBER: EW005512

PUBLICATION DATE: 78

TITLE: ELECTRICAL DESIGN, SAFETY, AND ENERGY CONSERVATION.

PERSONAL AUTHOR: THUMANN, ALBERT, P.E.

DESCRIPTOR: COSTS; *DESIGN; *ELECTRICAL SYSTEMS; *ENERGY CONSERVATION; *ELECTRICITY; ENGINEERS; *INSTRUMENTATION; *SAFETY; UTILITIES

DESCRIPTIVE NOTE: 255P. PRICE: $29.95

ABSTRACT: THIS BOOK COVERS SAFETY AND ENERGY EFFICIENCY AND THE PRACTICAL PROBLEMS ASSOCIATED WITH THEIR APPLICATION IN THE INDUSTRIAL ELECTRICAL DESIGN PROCESS. THE UNDERSTANDING OF ALL COMPONENTS OF ELECTRICAL SYSTEM DESIGN IS ESSENTIAL FOR ELECTRICAL DESIGNERS, SAFETY, PLANT AND PROJECT ENGINEER'S. THIS BOOK IS INTENDED FOR ALL FOUR PROFESSIONS.

AVAILABILITY: AEE ENERGY BOOKS, DEPT. 803, 4025 PLEASANTDALE ROAD, SUITE 3408 ATLANTA, GA 30340

IRIS ACCESSION NUMBER: EW005514

PUBLICATION DATE: JUN 76

TITLE: WATER PLANT INSTRUMENTATION AND AUTOMATION.

DESCRIPTOR: AUTOMATION; *COMPUTERS; *ELECTRONIC CONTROL; *INSTRUMENTATION; *MEASUREMENT; *QUALITY CONTROL; *TECHNOLOGY; *UTILITIES; WASTE DISPOSAL; *WATER RESOURCES; WATER POLLUTION CONTROL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 234P. PRICE: MEMBER $6.00, NON-MEMBER $12.00

ABSTRACT: INCLUDED ARE PAPERS THAT DEAL WITH THE AUTOMATION OF WATER AND WASTEWATER TREATMENT PLANTS. CONTROL SYSTEMS ENGINEERING, COMPUTER APPLICATIONS AND VARIOUS OTHER INSTRUMENTATION OPPORTUNITIES ARE ALSO DISCUSSED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION, 6666W. QUINCY AVENUE, DENVER, CO 80235

IRIS ACCESSION NUMBER: EW005515

PUBLICATION DATE: JUN 76

TITLE: RIVER WATER QUALITY ASSESSMENT.

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *CONFERENCES; ENVIRONMENTAL IMPACT; *HYDROLOGY; *RIVER QUALITY ASSESSMENT; *RIVERS; WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 110P. PRICE: MEMBER $3.00, NONMEMBER $6.00, NO. 20133

ABSTRACT: THIS PUBLICATION IS A COMPILATION OF PAPERS ON RIVER WATER QUALITY PRESENTED AT THE 96TH ANNUAL CONFERENCE OF THE AMERICAN WATER WORKS ASSOCIATION. PAPERS INCLUDED ARE: RIVER QUALITY ASSESSMENT: HISTORICAL METHODS AND CURRENT PHILOSOPHY; A PRACTICAL FRAMEWORK FOR RIVER QUALITY ASSESMENT, CHATTANOOCHEE RIVER BASIN, GEORGIA; AN ENVIRONMENTAL ASSESMENT OF IMPACTS OF COAL DEVELOPMENT ON THE WATER RESOURCES OF THE YAMPA RIVER BASIN, COLORADO AND WYOMING- PHASE I & II WORK PLAN; AND USE OF HYDROLOGIC DATA FOR RIVER QUALITY SAMPLING AND ANALYSIS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION, 6666 W. QUINCY AVE., DENVER, CO 80235

IRIS ACCESSION NUMBER: EW005516

PUBLICATION DATE: MAY 73

TITLE: DEVELOPING WATER RATES.

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *COST EFFECTIVENESS; COSTS; DESIGN; *ECONOMIC FACTORS; UTILITY SERVICES; *WATER SUPPLY; *WATER RATES; *WATER RATE SCHEDULES

DESCRIPTIVE NOTE: 109P. PRICE: MEMBERS $3.00, NON MEMBERS $6.00

ABSTRACT: THIS PUBLICATION CONTAINS FOUR PAPERS PRESENTED AT A ONE DAY SEMINAR ON DEVELOPING WATER RATES. THE PURPOSE OF THE SEMINAR WAS TO DESCRIBE GENERAL PRINCIPLES AND PROCEDURES, EXPLAIN THE BASIC METHODS OF COST OF SERVICE ANALYSIS, AND DISCUSS SOME OF THE PROBLEMS WHICH ARE INVOLVED IN WATER RATE DESIGN. PAPERS INCLUDED ARE: REVENUE REQUIREMENTS AND ALLOCATION TO FUNCTIONAL COST COMPONENTS; DISTRIBUTION OF COSTS OF WATER SERVICE TO CUSTOMER CLASSES; DEVELOPMENT AND DESIGN OF WATER RATE SCHEDULES, AND SPECIAL SERVICE CONSIDERATIONS AND OTHER RATE PRACTICES.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION, 2 PARK AVE., NEW YORK, NY 10016

IRIS ACCESSION NUMBER: EW005517

PUBLICATION DATE: 74

TITLE: PROCESSING WATER-TREATMENT-PLANT SLUDGE.

DESCRIPTOR: ALUM; CLARIFICATION (WATER); COAGULATION; DEWATERING; ENVIRONMENTAL PROTECTION; *OPERATIONS (WATER); POLLUTION CONTROL; *SLUDGE; *SLUDGE REMOVAL; *WATER TREATMENT; *WASTE DISPOSAL;

DESCRIPTIVE NOTE: 151P. PRICE: MEMBERS $4.50, NONMEMBERS $9.00, NO. 20108

ABSTRACT: THIS BOOK PRESENTS A COLLECTION OF PAPERS ON VARIOUS ASPECTS OF WATER TREATMENT PLANT SLUDGE. TOPICS INCLUDE: IMPACT OF ENVIRONMENTALISM ON WATER UTILITY OPERATION, ALUM SLUDGE THICKENING AND DISPOSAL, SLUDGE HANDLING AND DISPOSAL, DEWATERING OF WATER PLANT SLUDGE, DESIGN OF WASH-WATER AND ALUM SLUDGE DISPOSAL FACILITIES, THE HYDROCYCLONE FOR WATER CLARIFICATION, FILTRABILITY OF WATER TREATMENT SLUDGE, COAGULATION CONSIDERATIONS, CHARACTERIZATION OF CHEMICAL SLUDGES, THE EFFECT OF WATER UTILITY SLUDGE ON THE ACTIVATED SLUDGE PROCESS, ALUM RECOVERY, AND WATER TREATMENT PLANT WASTE DISPOSAL.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION, 6666 WEST QUINCY AVE., DENVER, CO 80235

IRIS ACCESSION NUMBER: EW005518

PUBLICATION DATE: 59

TITLE: WATER UTILITY MANAGEMENT.

DESCRIPTOR: ACCOUNTING; CIVIL DEFENSE; ECONOMICS; ENGINEERING; FIRE PROTECTION; INSURANCE; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; *MAINTENANCE; PLANNING; PERSONNEL; PUBLIC RELATIONS; REGULATIONS; STANDARDS; SAFETY; TRAINING; *UTILITIES; *WATER TREATMENT; *WATER SUPPLY

DESCRIPTIVE NOTE: 188P. PRICE: MEMBERS $7.00, NON MEMBERS $14.00

ABSTRACT: THIS TRAINING MANUAL FOR WATER UTILITY PERSONNEL WAS PREPARED BY THE AMERICAN WATERWORKS ASSOCIATION COMMITTEE ON EDUCATION. THE MANUAL CONTAINS INFORMATION ON OWNERSHIP, PLANNING, RESPONSIBILITY, FIRE PROTECTION, CIVIL DEFENSE PARTICIPATION, WATER RIGHTS, PERMITS, REGULATIONS, FINANCES, WATER RATES, ACCOUNTING, OPERATING PROCEDURES, ENGINEERING, STANDARDS, MAINTENANCE, INSURANCE, PERSONNEL, INSERVICE TRAINING, SAFETY AND PUBLIC RELATIONS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION, 6666 WEST QUINCY AVENUE, DENVER, CO 80235

IRIS ACCESSION NUMBER: EW005519

PUBLICATION DATE: JAN 77

TITLE: WATER FLUORIDATION PRINCIPLES AND PRACTICES.

DESCRIPTOR: DENTAL HEALTH; *DRINKING WATER; EQUIPMENT; *FLUORIDATION; *FLUORINE; *INSTRUCTIONAL MATERIALS; MAINTENANCE; *OPERATIONS (WATER); POTABLE WATER; SAFETY; *WATER TREATMENT

DESCRIPTIVE NOTE: 79P. PRICE: MEMBERS $4.00, NON MEMBERS $6.00

ABSTRACT: THIS MANUAL IS INTENDED TO ASSIST LOCAL AND STATE ENGINEERS IN DESIGNING FLUORIDATION INSTALLATIONS, AND WATER UTILITY PERSONNEL IN OPERATING THEM, SO THAT THE FULLEST ADVANTAGE OF THE BENEFITS OF FLUORIDATION CAN BE ACHIEVED. CHAPTERS INCLUDE: COMPOUNDS USED IN CONTROLLED FLUORIDATION; FEEDERS USED FOR ADDING FLUORIDES; PREPARATION OF FLUORIDE SOLUTIONS; SELECTING THE OPTIMAL FLUORIDATION SYSTEM; CONTROL AND SURVEILLANCE; MAINTENANCE; SAFETY AND HAZARDS IN HANDLING FLUORIDE CHEMICALS; TECHNICAL PROBLEMS ATTRIBUTED TO FLUORIDATION; AND THE PROGRESS OF FLUORIDATION IN POTABLE WATER SUPPLIES.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION, 6666 WEST QUINCY AVE., DENVER, CO 80235

IRIS ACCESSION NUMBER: EW005520

PUBLICATION DATE: JUN 76

TITLE: DUAL DISTRIBUTION SYSTEMS.

DESCRIPTOR: CASE STUDIES; CONSERVATION; COST EFFECTIVENESS; DESIGN; *DUAL DISTRIBUTION SYSTEMS; *DUAL WATER SYSTEMS; NON-POTABLE WATER; POTABLE WATER; STATE GUIDELINES; *WASTEWATER RECLAMATION; WATER QUALITY; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 106P. PRICE: MEMBERS $3.00, NON MEMBER $6.00

ABSTRACT: THE PAPERS CONTAINED IN THIS PUBLICATION ARE FROM THE 96TH ANNUAL CONFERENCE OF THE AMERICAN WATER WORKS ASSOCIATION - DUAL DISTRIBUTION SYSTEMS SEMINAR. DURING THIS SEMINAR, A WIDE RANGE OF EXAMPLES OF THE APPLICATION OF DUAL SUPPLY SYSTEMS ARE DISCUSSED. SPECIFIC ATTENTION IS FOCUSSED ON CASE STUDIES IN EUROPEAN COUNTRIES AND VARIOUS REGIONS OF THE US, DUAL WATER SYSTEM DESIGN, AND STATE GUIDELINES AND RECOMMENDATIONS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION, 6666 W. QUINCY AVE., DENVER, CO 80235

IRIS ACCESSION NUMBER: EW005521

PUBLICATION DATE: OCT 78

TITLE: CARIBBEAN BASIN WATER MANAGEMENT PROJECT: INSTRUCTOR'S MANUAL 8 PLANNING GUIDE FOR TRAINING OF TRAINERS.

PERSONAL AUTHOR: AUSTIN, JOHN H.; AND OTHERS

DESCRIPTOR: *CARIBBEAN; *EDUCATIONAL NEEDS; *EDUCATIONAL PROGRAMS; *INSTRUCTION; INSTRUCTIONAL MATERIALS; *INTERNATIONAL EDUCATION; *INSERVICE EDUCATION; *MANAGEMENT; *PLANNING; TRAINING; *TRAINING PROGRAMS; *TECHNICAL COOPERATION; *WATER RESOURCES

DESCRIPTIVE NOTE: 435P.

ABSTRACT: THIS INSTRUCTOR'S MANUAL AND PLANNING GUIDE HAS BEEN DEVELOPED FOR THE TRAINING OF TRAINERS IN THE CARIBBEAN BASIN WATER MANAGEMENT PROJECT. THE MANUAL AIMS TO INCREASE TRAINING EFFECTIVENESS IN ORDER TO IMPROVE MANAGERIAL AND OPERATIONAL COMPETENCE. INNOVATIVE METHODS ARE OUTLINED TO CLOSE THE TRAINING GAP AND SIMULTANEOUSLY DEVELOP IN-COUNTRY CAPABILITIES FOR SUSTAINING A TRAINING DELIVERY SYSTEM. THE PROPOSED METHODOLOGIES EMPHASIZE THE NECESSITY OF ESTABLISHING A FRAMEWORK TO FACILITATE TECHNICAL COOPERATION AMONG THE COUNTRIES OF THE EASTERN CARIBBEAN.

AVAILABILITY: ENGINEER NEIL F. CAREFOOT, PROJECT MANAGER, PAHO/WHO, P.O. BOX 508, BRIDGETOWN, BARBADOS

IRIS ACCESSION NUMBER: EW005522

PUBLICATION DATE: FEB 79

TITLE: TRAINEES MANUAL FOR THE TRAINING COURSE. "SANITARY SURVEYS OF SMALL WATER SUPPLIES".

DESCRIPTOR: DRINKING WATER; EDUCATIONAL PROGRAMS; *INSTRUCTIONAL MATERIALS; JOB TRAINING; LABORATORY TECHNIQUES; *OPERATIONS (WATER); *SANITARY SURVEYS; SEMINARS; TEACHING GUIDES; *TRAINING MANUALS; WATER RESOURCES; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 170P. PRICE: $23.00

ABSTRACT: THIS TRAINEES MANUAL HAS BEEN DEVELOPED FOR USE IN TRAINING PERSONNEL IN THE TECHNIQUES OF MAKING A SANITARY SURVEY OF PUBLIC WATER SUPPLY SYSTEMS. IT IS INTENDED FOR USE IN CONDUCTING TECHNICAL ASSISTANCE SEMINARS FOR STATE AND LOCAL AGENCY PERSONNEL RESPONSIBLE FOR THE FEDERAL SAFE DRINKING WATER ACT. UNITS INCLUDE: BASIC KNOWLEDGE FOR SANITARY SURVEYS, PREPARATION FOR THE FIELD SURVEY, SANITARY SURVEY COMMON ELEMENTS, WELLS, LABORATORY EVALUATION, SURFACE SOURCES, CROSS CONNECTIONS, PUBLIC RELATIONS, TECHNICAL ASSISTANCE, AND SURVEY REPORTS.

AVAILABILITY: CONFERENCE OF STATE SANITARY ENGINEERS, MEREDIGHT H. THOMPSON, EXECUTIVE SECRETARY, 1 DEERFIELD DRIVE, TROY NY 12180

IRIS ACCESSION NUMBER: EW005523

PUBLICATION DATE: FEB 79

TITLE: INSTRUCTOR'S MANUAL FOR THE TRAINING COURSE. "SANITARY SURVEYS OF SMALL WATER SUPPLIES".

DESCRIPTOR: *DRINKING WATER; EDUCATIONAL PROBLEMS; *INSTRUCTIONAL MATERIALS; *INSTRUCTORS MANUAL; JOB TRAINING; LABORATORY TECHNIQUES; *SANITARY SURVEYS; SEMINARS; TEACHING GUIDES; *TRAINING MANUALS; WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 200P.

ABSTRACT: THIS INSTRUCTOR'S MANUAL HAS BEEN DEVELOPED FOR USE IN TRAINING PERSONNEL IN THE TECHNIQUES OF MAKING A SANITARY SURVEY OF PUBLIC WATER SUPPLY SYSTEMS. IT IS INTENDED FOR USE IN CONDUCTING TECHNICAL ASSISTANCE SEMINARS FOR STATE AND LOCAL AGENCY PERSONNEL RESPONSIBLE FOR THE STATE PUBLIC WATER SUPPLY PROGRAM UNDER THE FEDERAL SAFE DRINKING WATER ACT. THE MANUAL IS DIVIDED INTO THREE SECTIONS: (1) PRE-COURSE ACTIVITIES, (2) COURSE CONTENT AND LESSON SUPPORT MATERIAL, AND (3) COURSE ASSESSMENT AND EVALUATION. A TRAINEE'S MANUAL ACCOMPANIES THIS.

AVAILABILITY: CONFERENCE OF STATE SANITARY ENGINEERS, MEREDITH H. THOMPSON, EXECUTIVE SECRETARY, 1 DEERFIELD DRIVE, TROY, NY 12180

IRIS ACCESSION NUMBER: EW005524

TITLE: GUIDELINES AND TYPICAL SANITARY SURVEY FORMS FOR EVALUATING PUBLIC WATER SUPPLY SYSTEMS.

DESCRIPTOR: *EVALUATION; FIELD TESTS; *INSPECTION; RECORD KEEPING; *RECORDS; *SANITATION; *SANITARY ENGINEERING; *SURVEYS; *UTILITIES; *WATER SUPPLY

DESCRIPTIVE NOTE: 35P.

ABSTRACT: THIS BOOK DESCRIBES THE DEVELOPMENT OF GUIDELINES AND FORMS FOR INSPECTING AND EVALUATING WATER SYSTEMS. IN 1976, ALL STATE SANITARY ENGINEERS WERE CANVASSED BY LETTER, REQUESTING DATA, FORMS, GUIDELINES AND EQUIPMENT USED IN COMPLETING A SANITARY SURVEY OF PUBLIC WATER SYSTEMS. DATA FROM THE 26 STATES THAT SUBMITTED INFORMATION WERE USED TO DEVELOP A GENERALIZED SANITARY SURVEY FORM.

AVAILABILITY: CONFERENCE OF STATE SANITARY ENGINEERS, MEREDITH H. THOMPSON EXECUTIVE SECRETARY, 1 DEERFIELD DRIVE, TROY, NY 12180

IRIS ACCESSION NUMBER: EW005525

PUBLICATION DATE: JAN 70

TITLE: IMPLEMENTATION OF AN EFFECTIVE CROSS-CONNECTION CONTROL PROGRAM.

PERSONAL AUTHOR: VAN METER, ROY O.

DESCRIPTOR: BACKFLOW; *CROSS-CONNECTIONS; *DESIGN; EQUIPMENT; HEALTH HAZARDS; *IMPLEMENTATION; INSPECTION; *MAINTENANCE; PUBLIC HEALTH; POTABLE WATER; *PIPES; *WATER DISTRIBUTION; WATER QUALITY

DESCRIPTIVE NOTE: 32P.

ABSTRACT: THIS DOCUMENT IS A TRANSCRIPT OF A SPEECH ON THE NEED FOR AND IMPLEMENTATION OF A CROSS-CONNECTION CONTROL PROGRAM. THE FIRST PART DISCUSSES WATER QUALITY, HEALTH HAZARDS, AND A REVIEW OF CURRENT CROSS-CONNECTION CONTROL PROGRAMS IN THE U.S. CONTAINED IN THE SECOND PART ARE THE PROCEDURES FOR IMPLEMENTING A CROSS-CONNECTION CONTROL PROGRAM. DISCUSSION IS FOCUSSED AROUND THREE MAJOR TOPICS: OBJECTIVES, RESPONSIBILITY, AND POLICY.

AVAILABILITY: CONSULTING SANITARY ENGINEER TO HERSEY-SPARLING METER COMPANY, 250 ELM STREET, DEDHAM, MA 02026

IRIS ACCESSION NUMBER: EW005526

TITLE: OPERATOR TRAINING WATER AND WASTEWATER WORKS LABORATORY-BASIC.

DESCRIPTOR: EQUIPMENT; FACILITIES; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *LABORATORY TECHNIQUES; LABORATORY TESTING; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER); RECORD KEEPING; SAFETY; STUDY GUIDES; *TRAINING MANUALS; *WASTEWATER TREATMENT; *WATER TREATMENT; *WORKBOOKS

DESCRIPTIVE NOTE: 84P. PRICE: $6.00

ABSTRACT: THIS WORKBOOK IS DESIGNED FOR A BASIC LABORATORY COURSE IN WATER TREATMENT. IT WAS DEVELOPED WITH FOUR MAJOR OBJECTIVES;: (1) TO SERVE AS A STUDY GUIDE, (2) TO PRESENT BASIC QUESTIONS AND PROBLEMS ON THEORETICAL AND ACTUAL LABORATORY TESTS, (3) TO SIMULATE SITUATIONS THAT MAY BE ENCOUNTERED BY THE LABORATORY TECHNICIAN IN A WATER TREATMENT FACILITY, AND (4) TO PROVIDE A REFERENCE BODY FOR FUTURE USE. THE WORKBOOK IS DIVIDED INTO TWO PARTS. PART 1 CONTAINS LABORTORY OPERATIONS INCLUDING "SAMPLING AND PROCEDURES", "APPARATUS AND EQUUPMENT", "SAFETY", AND "RECORDS AND DATA HANDLING". PART 2 CONTAINS 18 LABORATORY TESTS.

AVAILABILITY: OPERATOR TRAINING COMMITTEE OF OHIO, INC., P.O. BOX 626, WORTHINGTON, OHIO 43085

IRIS ACCESSION NUMBER: EW005527

PUBLICATION DATE: 68

TITLE: OPERATOR TRAINING WATER AND WASTEWATER WORKS OPERATIONS--BASIC.

DESCRIPTOR: *INSTRUCTIONAL MATERIALS; *JOB TRAINING; *LEARNING ACTIVITIES; MATHEMATICS; OHIO; *OPERATIONS (WASTEWATER); *OPERATIONS (WATER); *POST SECONDARY EDUCATION; *WASTEWATER TREATMENT; WATER TREATMENT

DESCRIPTIVE NOTE: 174P. PRICE: $12.00

ABSTRACT: THIS WORKBOOK WAS DESIGNED TO AID IN THE BASIC TRAINING OF WATER AND WASTEWATER WORKS OPERATORS. SECTIONS INCLUDE: TERMINOLOGY, MATHEMATICS REVIEW AND PLANT DATA, AND THEORY AND OPERATIONS. THESE SECTIONS CONTAIN A NUMBER OF ASSIGNMENTS APPLICABLE TO EACH TOPIC. EACH ASSIGNMENT CONTAINS A STATEMENT OF OBJECTIVES, A READING ASSIGNMENT, AND A SERIES OF QUESTIONS. ALSO INCLUDED IS A GLOSSARY AND A METRIC CONVERSION TABLE.

AVAILABILITY: OPERATOR TRAINING COMMITTEE OF OHIO, INC., P.O. BOX 626, WORTHINGTON, OHIO 43085

IRIS ACCESSION NUMBER: EW005528

PUBLICATION DATE: 68

TITLE: OPERATOR TRAINING WATER AND WASTEWATER WORKS OPERATIONS - SECOND COURSE.

DESCRIPTOR: *EQUIPMENT; *FACILITIES; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER); *TRAINING MANUAL; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 229P. PRICE: $15.00

ABSTRACT: THIS WORKBOOK IS DESIGNED FOR AN OPERATOR TRAINING COURSE IN WATER AND WASTEWATER TREATMENT. IT IS INTENDED FOR PERSONS WHO HAVE OBTAINED AT LEAST A STATE OF OHIO I CERTIFICATION OR EQUIVALENT EDUCATION IN WATER TREATMENT. THE VARIOUS PARTS OF THIS SECOND COURSE WORKBOOK ARE: (1) TERMINOLOGY USED IN THE WATER SUPPLY FIELD INCLUDING METRIC CONVERSION, (2) TREATMENT PLANT FLOW DIAGRAMS, (3) DESIGN DATA FOR MODEL PLANTS, (4) OPERATING DATA FOR MODEL PLANTS, AND (5) THEORY AND OPERATIONS. THIS WORKBOOK IS INTENDED TO SERVE AS A STUDY GUIDE, A FUTURE REFERENCE BOOK, AND TO PRESENT QUESTIONS AND PROBLEMS THAT WILL BE ENCOUNTERED BY LABORATORY TECHNICIANS IN WATER TREATMENT FACILITIES.

AVAILABILITY: OPERATOR TRAINING COMMITTEE OF OHIO, INC., P. O. BOX 626, WORTHINGTON, OH 43085

INSTITUTION NAME: OHIO STATE UNIVERSITY, WATER RESOURCES CENTER.

IRIS ACCESSION NUMBER: EW005529

TITLE: MECHANICAL MAINTENANCE TRAINING PROGRAM #4-BEARINGS AND LUBRICATIONS.

DESCRIPTOR: *BEARINGS; *LUBRICATION; *MAINTENANCE; *MECHANICAL MAINTENANCE; MAINTENANCE TRAINING; OPERATIONAL TECHNOLOGY; *TRAINING PROGRAM; VIDEOCASETTES; WASTEWATER TREATMENT; WASTEWATER TREATMENT FACILITIES; WASTEWATER TREATMENT PERSONNEL; *AUDIOVISUAL AIDS; *INSTRUCTIONAL MATERIALS

DESCRIPTIVE NOTE: 3 VC, 6 OVERHEADS, MANUAL. THIS MODULE CAN BE BORROWED FOR A TWO WEEK PERIOD FREE OF CHARGE.

ABSTRACT: LARGE AND SMALL TREATMENT FACILTITIES ALL BENEFIT FROM IMPROVED MAINTENANCE TRAINING. THEREFORE, THE INSTRUCTIONAL RESOURCES CENTER HAS PRODUCED THIS MODULE FOR AN IN-HOUSE MAINTENANCE TRAINING PROGRAM FOR WATER AND WASTEWATER TREATMENT PERSONNEL. THE MODULE CONSIST OF COLOR VIDEOCASSETTES, A STUDENT WORKBOOK, TRANSPARENCIES AND THE INSTRUCTOR'S GUIDE. THE MODULE CONCENTRATES ON MAINTENANCE OF BEARINGS AND THE IMPORTANCE OF CORRECT LUBRICATION. CONTAINS DISCUSSION OF PLAIN JOURNAL, ANTI-FRICTION JOURNAL, AND OIL THRUST BEARINGS. ALSO COVERS PROVEN MAINTENANCE PROCEDURES, SUCH AS CHECKING OIL CLEARANCES, CONTACT CHECKS, SHAFT AND INNER RING REMOVAL, MAINTENANCE OF TAPERED ROLLER BEARINGS, AND PROPER LUBRICATION.

AVAILABILITY: USEPA, NATIONAL TRAINING AND OPERATIONAL TECHNOLOGY CENTER, CINCINNATI, OH 45268. ATTENTION: MRS. EILEEN HOPEWELL

IRIS ACCESSION NUMBER: EW005530

PUBLICATION DATE: SEP 80

TITLE: CHEMICALS SUBSTITUTE FOR BIOLOGICAL TREATMENT.

PERSONAL AUTHOR: PARROTT, JAMES H.

DESCRIPTOR: *CASE STUDIES; *CHEMICAL TREATMENT; *COSTS; DESIGN; EFFLUENTS; MANAGEMENT; NEVADA; *OPERATIONS (WASTEWATER); *PLANT PERFORMANCE; PROBLEM SOLVING; STANDARDS; TESTING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 105-106P.

ABSTRACT: THE LARGEST WASTEWATER TREATMENT PLANT IN NEVADA WAS FACED WITH SEVERE ENGINEERING AND MANAGEMENT PROBLEMS INCLUDING A RAPIDLY EXPANDING COMMUNITY, A TREATMENT PLANT AT CAPACITY, STRICT EFFLUENT STANDARDS, AND A LIMITED BUDGET. TO ATTAIN DISCHARGE LIMITATION, CHEMICAL ADDITION WAS ACCEPTED AS THE PRIMARY METHOD. THIS ARTICLE REPORTS ON THE INITIAL PILOT TESTING, FULL PLANT TESTING, HARDWARE DESIGN AND IMPLEMENTATION, AND FULL-SCALE DEMONSTRATION. THE RESULTS OF THE STUDY INDICATE THAT CHEMICAL ADDITIONS SUCCESS DEPENDS UPON SECONDARY PUMPING CAPACITY TO REMOVE THE SLUDGE. ULTIMATE SUCCESS DEPENDS UPON THE ABILITY OF THE PRIMARY CLARIFIERS AND THE PRIMARY PUMPS TO REMOVE THE SLUDGE FROM THE SYSTEM.

AVAILABILITY: WATER & SEWAGE WORKS, V127 N9

IRIS ACCESSION NUMBER: EW005531

PUBLICATION DATE: SEP 80

TITLE: ION-EXCHANGE BEDS DEFY ORGANIC FOULING.

PERSONAL AUTHOR: CICHON, RONALD J.; AND OTHERS

DESCRIPTOR: EQUIPMENT; *ION-EXCHANGE BEDS; LABORATORY PROCEDURES; *ORGANIC FOULING; *PILOT TESTS; RESINS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 48,54,100P.

ABSTRACT: ION EXCHANGE BEDS CAN BE DESIGNED TO WITHSTAND ORGANIC FOULING. HOWEVER, BECAUSE ORGANIC MATTER CAN CONSIST OF SUCH COMPOUNDS AS HUMIC AND FUMIC ACIDS, DESIGN OF THE TREATMENT SYSTEM DEPENDS ON FIELD TESTING TO VERIFY IMMUNITY. PRESENTED IN THIS ARTICLE ARE DETAILED TEST PROCEDURES AND RESULTS WHICH SHOW THAT ORGANIC MATTER DID

NOT HINDER THE PERFORMANCE OF PROPERLY STRUCTURED BEDS CONTAINING ION-EXCHANGE RESINS.

AVAILABILITY: WATER 8 SEWAGE WORKS, V127 N9

IRIS ACCESSION NUMBER: EW005532

PUBLICATION DATE: SEP 80

TITLE: DESIGN AND ECONOMIC CONSIDERATIONS OF GAC SYSTEMS.

PERSONAL AUTHOR: GUARINO, CARMEN F.; AND OTHERS

DESCRIPTOR: *COMPUTER MODELS; *COSTS; *DESIGN CRITERIA; *ECONOMIC ANALYSIS; *GRANULAR ACTIVATED CARBON; IMPLEMENTATION; MAINTENANCE; MANAGEMENT; *OPERATIONS (WATER); PILOT STUDIES; STANDARDS; *WATER TREATMENT

DESCRIPTIVE NOTE: 58-67P.

ABSTRACT: A PRELIMINARY ECONOMIC ANALYSIS WAS PERFORMED TO EVALUATE ALTERNATIVE GRANULAR ACTIVATED CARBON TREATMENT CONFIGURATIONS, PERMITTING A COMPARATIVE EVALUATION OF TREATMENT MODES AND THE CAPITAL AND OPERATION AND MAINTENANCE COSTS OF DIFFERENTLY SIZED FACILITIES. THE ANALYSIS WAS PERFORMED USING A COMPUTER COST MODEL CALIBRATED WITH DATA FROM THE LITERATURE, MANUFACTURERS COSTS AND, WHENEVER POSSIBLE, INFORMATION BASED ON GAC FACILITIES IN USE. THE RESULT WAS A FLEXIBLE COMPUTER MODEL WHICH CAN BE USED TO EVALUATE POSSIBLE MODIFICATIONS TO EPA GRANULAR ACTIVATED CARBON DESIGN CRITERIA.
AVAILABILITY: WATER 8 SEWAGE WORKS, V127 N9

IRIS ACCESSION NUMBER: EW005533

PUBLICATION DATE: SEP 80

TITLE: WASTEWATER FLOW MEASURING DEVICES.

PERSONAL AUTHOR: CHEREMISINOFF, NICHOLAS P., DR.; CHEREMISINOFF, PAUL N.

DESCRIPTOR: EQUIPMENT EVALUATION; *EQUIPMENT MANUFACTURERS; FACILITIES; *FLOW MEASURING DEVICES; FLOW METERS; *MEASUREMENT INSTRUMENTS; MEASUREMENT TECHNIQUES; METERS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 50-57P.

ABSTRACT: PROPERLY DESIGNED WASTEWATER MONITORING AND TREATMENT FACILITIES SHOULD INCORPORATE SUITABLE MEANS OF OBTAINING ACCURATE INFORMATION ON FLOW RATES, FLOW VARIABILITY, AND TOTAL FLOW. SELECTION OF THE CORRECT MEASURING DEVICE OR METHOD WILL DEPEND ON SUCH ITEMS AS COST, TYPE, AND ACCESSIBILITY OF THE CONDUIT CARRYING THE STREAM, AVAILABLE HYDRAULIC HEAD, AND THE NATURE OF THE WASTES. THE ARTICLE PROVIDES GENERAL GUIDELINES THAT CAN BE APPLIED TO EVALUATION AND SELECTION OF WASTEWATER FLOW MEASURING DEVICES. SEVERAL MATHEMATICAL MODELS FOR DETERMINING FLOW RATES AND A CROSS REFERENCE CHART OF MANUFACTURERS AND THE TYPES OF FLOW MEASURING DEVICES THEY PRODUCE ARE PRESENTED.

AVAILABILITY: POLLUTION ENGINEERING, V12 N3

IRIS ACCESSION NUMBER: EW005534

PUBLICATION DATE: SEP 80

TITLE: ABC'S OF SETTING UP AN AQUATIC TOXICITY LAB.

PERSONAL AUTHOR: VALSATY, VICTORY

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *AQUATIC TOXICOLOGY; BIBLIOGRAPHIES; *DEMONSTRATION PROJECTS; *EQUIPMENT; *GUIDELINES; *LABORATORY PROCEDURES; *RESEARCH FACILITIES; *TOXICOLOGY

DESCRIPTIVE NOTE: 58-61P.

ABSTRACT: PRESENTED ARE THE BASIC GUIDELINES FOR ESTABLISHING AN IN-HOUSE AQUATIC TOXICITY LABORATORY. TOPICS DISCUSSED ARE: DEVELOPMENT AND PURPOSE OF AQUATIC TOXICOLOGY, INITIAL CONSIDERATIONS, SOURCES OF INFORMATION, LABORATORY WATER SUPPLY, SOURCES OF TEST SPECIMENS, DIETARY REQUIREMENTS, BASIC LABORATORY EQUIPMENT AND CONSIDERATIONS, TEST PROCEDURES, AND ADVANCES IN AQUATIC TOXICOLOGY. IN ADDITION, A LIST OF 27 REFERENCES ARE PRESENTED.

AVAILABILITY: POLLUTION ENGINEERING, V12 N3

IRIS ACCESSION NUMBER: EW005535

PUBLICATION DATE: SEP 80

TITLE: ALL ABOUT TOC ANALYZERS.

PERSONAL AUTHOR: SMALL, JOHN W.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; DESIGN; *EQUIPMENT EVALUATION; *INSTRUMENTATION; MAINTENANCE; MONITORING; *MONITORS; TECHNOLOGICAL ADVANCEMENTS; *TOTAL ORGANIC CARBON; WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 63-65P.

ABSTRACT: THE PURPOSE OF THIS ARTICLE IS TO CRITICALLY EXAMINE THE USE OF ONLINE TOTAL ORGANIC CARBON (TOC) MONITORS WITH A VIEW TOWARD DEFINING OPERATIONAL PROBLEMS AND MAINTENANCE REQUIREMENTS ASSOCIATED WITH VARIOUS TECHNIQUES. RECENT TECHNOLOGY ADVANCES IN TOC MEASUREMENT ARE ALSO COVERED.

AVAILABILITY: POLLUTION ENGINEERING, V12 N3

IRIS ACCESSION NUMBER: EW005536

PUBLICATION DATE: SEP 80

TITLE: NEW WAYS TO FIX LEAKY SEWERS.

PERSONAL AUTHOR: NELSON, RICHARD E.

DESCRIPTOR: CASE STUDIES; ILLINOIS; *INFILTRATION; *INFLOW; MANHOLE REPAIR; *MANAGEMENT; *MAINTENANCE; PIPE LININGS; PIPES; *SEWERS; SLIP LINING; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 39-40,42P.

ABSTRACT: THIS ARTICLE REPORTS ON THE SUCCESSFUL ATTEMPT BY THE CITY OF STREAMWOOD, ILLINOIS, TO CONTROL EXCESSIVE INFILTRATION AND INFLOW. A FIVE-PHASE SEWER REHABILITATION PROGRAM WAS IMPLEMENTED: (1) SLIPLINING 1546 FEET OF 24-INCH DIAMETER SEWER, (2) REHABILITATING 991 OUT OF 1154 MANHOLES IN THE SYSTEM, (3) GROUTING LEAKY SEWER LINES, (4) REPLACING CRACKED SEWER LINES, AND (5) DISCONNECTING 850 PRIVATE SECTOR SOURCES OF INFLOW. EACH PHASE OF THE PLAN IS DISCUSSED IN DETAIL.

AVAILABILITY: AMERICAN CITY AND COUNTY, V95 N9

IRIS ACCESSION NUMBER: EW005537

PUBLICATION DATE: SEP 80

TITLE: A U.S. TEST FOR 'INSITUFORM' OR, HOW TO REBUILD PIPE FROM WITHIN.

PERSONAL AUTHOR: OWENS, RON

DESCRIPTOR: CASE STUDIES; COST EFFECTIVENESS; *EQUIPMENT; FLORIDA; INFILTRATION; *INSITUFORM; *MAINTENANCE; PIPE LININGS; *SEWERS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 40-41P.

ABSTRACT: THIS ARTICLE EXAMINES THE USE OF THE PROCESS "INSITUFORM" FOR THE RENOVATION OF SEWER AND STORM LINES. THE PROCESS USES A FLAT, FLEXIBLE POLYESTER FIBER FELT TUBING, LINED ON ONE SIDE WITH POLYURETHANE AND IMPREGNATED WITH A LIQUID, THERMAL-SETTING CATALYZED RESIN AT THE TIME OF INSTALLATION. THE CITY OF SOUTH DAYTONA, FLORIDA REPORTS A HIGH DEGREE OF SUCCESS WITH THIS PROCESS.

AVAILABILITY: AMERICAN CITY AND COUNTY, V95 N9

IRIS ACCESSION NUMBER: EW005538

PUBLICATION DATE: SEP 80

TITLE: WHY PRECHLORINATION IS ON THE WAY OUT.

PERSONAL AUTHOR: GROVER, KATHRYN

DESCRIPTOR: AMMONIATION; CHLORINATION; *CHLORINE; CHLOROFORM; *DISINFECTION; *PRECHLORINATION; PRECURSOR REDUCTION; SAFETY; *TRIHALOMETHANE; *WATER TREATMENT; WATER TREATMENT PLANTS

DESCRIPTIVE NOTE: 67-68P.

ABSTRACT: THE FUTURE OF PRECHLORINATION OF RAW WATER SUPPLIES IS DISCUSSED IN THIS ARTICLE. TO AVOID THE FORMATION OF TRIHALOMETHANE, CONSULTING ENGINEERS AND ENVIRONMENTAL SCIENTISTS ARGUE THAT CHLORINE IS MOST EFFECTIVE AND SAFEST WHEN IT IS APPLIED TO THE CLEANEST WATER IN A TREATMENT SYSTEM. SEVERAL ALTERNATIVE TREATMENT APPROACHES ARE EXAMINED THROUGH NATIONWIDE CASE STUDIES.

AVAILABILITY: AMERICAN CITY AND COUNTY, V95 N9

IRIS ACCESSION NUMBER: EW005539

PUBLICATION DATE: JUN 76

TITLE: AWWA STANDARD FOR SWING-CHECK VALVES FOR ORDINARY WATERWORKS SERVICE.

DESCRIPTOR: *DESIGN; *EQUIPMENT; INSPECTION; *STANDARDS; *SWIN-CHECK VALVES; TESTING; *VALVES; *WATERWORKS EQUIPMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 10P. PRICE: MEMBER $1.50, NON MEMBER $3.00

ABSTRACT: THIS BOOKLET DISCUSSES A STANDARD FOR SWING-CHECK VALES FOR WATERWORKS SERVICES. IT INCLUDES INFORMATION ON MATERIALS, DESIGN CONSIDERATIONS, FABRICATION, INSPECTION, TESTING, MARKING AND SHIPPING.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION, 6666 WEST QUINCY AVENUE, DENVER, CO 80235

INSTITUTION NAME: AMERICAN WATER WORKS ASSOCIATION.

IRIS ACCESSION NUMBER: EW005540

PUBLICATION DATE: JUN 76

TITLE: AWWA STANDARD FOR COLD-APPLIED TAPE COATINGS FOR SPECIAL SECTIONS CONNECTIONS, AND FITTINGS FOR STEEL WATER PIPELINES.

DESCRIPTOR: CONNECTIONS; FITTINGS; INSPECTION; MARKING; PREFABRICATED COATING; PACKAGING; *PIPES; *STANDARDS; *STEEL PIPES; STORING; *TAPE COATINGS; TESTING; *WATER DISTRIBUTION; *WATER SUPPLY

DESCRIPTIVE NOTE: 12P. PRICE: MEMBER $1.50, NON MEMBER $3.00

ABSTRACT: THIS BOOKLET DISCUSSES A STANDARD FOR COLD APPLIED TAPE COATINGS FOR SPECIAL SECTIONS, CONNECTIONS, AND FITTING FOR STEEL WATER PIPELINES. IT INCLUDES INFORMATION ON PREFABRICATED COATING SYSTEMS, COATING APPLICATION, INSPECTION, TESTING, PACKAGING, MARKING AND STORING.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION, 6666 WEST QUINCY AVENUE, DENVER, CO 80235

IRIS ACCESSION NUMBER: EW005541

PUBLICATION DATE: AUG 76

TITLE: BASIC WATER TREATMENT CHEMISTRY.

DESCRIPTOR: CHEMISTRY; CHEMICAL REACTIONS; *DRINKING WATER; FLUORIDE; *INSTRUCTIONAL MATERIALS; MEASUREMENT; *REGULATIONS; SAMPLING; *WATER CHEMISTRY; *WATER TREATMENT; *WATERWORKS CHEMISTRY

DESCRIPTIVE NOTE: 62P.

ABSTRACT: THIS MANUAL EXPLAINS THE BASICS OF WATER CHEMISTRY. THE TOPICS COVERED INCLUDE: BASIC CHEMISTRY, WATER TESTING PROCEDURES, WATERWORKS CHEMISTRY AND FLUORIDE SOLUTION PREPARATION. AN ADDITIONAL CHAPTER ON NATIONAL INTERIM PRIMARY DRINKING WATER REGULATIONS IS ALSO INCLUDED.

AVAILABILITY: SOUTH DAKOTA DEPARTMENT OF ENVIRONMENTAL PROTECTION, PIERRE, SD 57501

IRIS ACCESSION NUMBER: EW005542

PUBLICATION DATE: 79

TITLE: SMALL WATER SYSTEMS SERVING THE PUBLIC.

DESCRIPTOR: COMMUNITY WATER SYSTEMS; *DESIGN; DRINKING WATER; *MAINTENANCE; *MANUALS; *NON-COMMUNITY WATER SYSTEMS; *OPERATIONS (WATER); PLANNING; *PUBLIC WATER SYSTEMS; *SMALL WATER SYSTEMS; *WATER TREATMENT; *WATER DISTRIBUTION; *WATER SUPPLY; WELLS

DESCRIPTIVE NOTE: 197P.

ABSTRACT: IT IS THE PURPOSE OF THIS MANUAL TO PROVIDE PLANNING, DESIGN, DEVELOPMENT, OPERATION, AND MAINTENANCE GUIDANCE FOR THE NUMEROUS PUBLIC WATER SYSTEMS SERVING THE NON-COMMUNITY GROUPING AND THE SMALL COMMUNITY SYSTEMS. IN ORDER TO INCREASE ITS USEFULNESS, THE MANUAL IS CORRELATED WITH THE NATIONAL DRINKING WATER REGULATIONS. CHAPTERS INCLUDE: WATER MEASURING TERMS AND UNITS; PLANNING, SANITARY SURVEY AND DESIGN CONSIDERATION; DESIGN CAPACITY OF SYSTEM COMPONENTS; SOURCES OF WATER; WELL CONSTRUCTION AND DEVELOPMENT; WELL PUMP SYSTEMS; DEVELOPING SPRINGS; DEVELOPING SURFACE WATERS; CHLORINATION; TREATMENT AND CONDITIONING; DISTRIBUTION SYSTEM; NATIONAL DRINKING WATER REGULATION; MAINTENANCE; RECORDKEEPING; AND EMERGENCIES AND SPECIAL PROBLEMS.

AVAILABILITY: CONFERENCE OF STATE SANITARY ENGINEERS, MEREDITH H. THOMPSON, EXECUTIVE SECRETARY, 1 DEERFIELD DRIVE, TROY, NY 12180

IRIS ACCESSION NUMBER: EW005543

PUBLICATION DATE: SEP 80

TITLE: RESEARCH SUMMARY. INTERGRATED PEST MANAGEMENT.

DESCRIPTOR: ALFALFA; APPLES; *BIOLOGICAL CONTROLS; COTTON; ENVIRONMENTAL PROTECTION AGENCY; *ENVIRONMENT; *HAZARDOUS MATERIALS; *INTEGRATED PEST MANAGEMENT; *PESTICIDES; RESEARCH; *RESEARCH REVIEWS; SOYBEANS

DESCRIPTIVE NOTE: 28P. PRICE:

ABSTRACT: THIS PUBLICATION SUMMARIZES CURRENT RESEARCH IN THE FIELD OF INTEGRATED PEST MANAGEMENT. INCLUDED IS AN EXAMINATION OF THE CURRENT USE OF PESTICIDES IN THE U.S. AND THE ASSOCIATED PROBLEMS BEING EXPERIENCED. ATTENTION IS FOCUSSED ON ALTERNATIVE METHODS OF PEST MANAGEMENT INCLUDING BIOLOGICAL AND CULTURAL CONTROLS. THE RESEARCH OF 15 UNIVERSITIES ON PEST MANAGEMENT FOR ALFALFA, APPLE, COTTON, AND SOYBEAN IS REPORTED. ALSO INCLUDED ARE SECTIONS ON PEST MANAGEMENT STRATEGIES FOR SOIL INSECTS ON CORN, ONION CROP AGROECOSYSTEM, MUSK AND PLUMELESS THISTLE CONTROL, MOSQUITO MANAGEMENT, AND URBAN PEST MANAGEMENT.

AVAILABILITY: PUBLICATIONS, CENTER FOR ENVIRONMENTAL RESEARCH INFORMATION, US EPA, CINCINNATI, OH 45268

INSTITUTION NAME: UNTIDED STATES ENVIRONMENTAL PROTECTION AGENCY.

IRIS ACCESSION NUMBER: EW005547

PUBLICATION DATE: MAY 79

TITLE: GUIDELINES FOR THE DESIGN OF WATER STORAGE FACILITIES, WATER DISTRIBUTION SYSTEMS, SANITARY SEWAGE SYSTEMS AND STORM SEWERS.

DESCRIPTOR: DESIGN; *DESIGN CRITERIA; *GUIDELINES; ONTARIO; OPERATIONS (WATER); SANITARY SEWAGE SYSTEMS; *STORAGE FACILITIES; STORM SEWERS; *SEWERS; *WASTEWATER COLLECTION; *WATER DISTRIBUTION SYSTEMS; *WATER STORAGE FACILITIES; WATER SUPPLY SYSTEMS

DESCRIPTIVE NOTE: 208P.

ABSTRACT: THIS PUBLICATION CONTAINS DESIGN GUIDELINES FOR WATER RESOURCE FACILITIES FOR ONTARIO, CANADA. THE BOOKLET IS DIVIDED INTO FOUR MAJOR SECTIONS: DESIGN GUIDELINES FOR (1) WATER STORAGE FACILITIES, (2) STORM SEWER SYSTEMS, (3) SANITARY SEWAGE SYSTEMS, AND (4) WATER DISTRIBUTION SYSTEMS. EACH SECTION EXAMINES VARIOUS DESIGN PARAMETERS APPROPRIATE TO EACH SYSTEM. IN ADDITION, APPENDICES AND BIBLIOGRAPHIES FOLLOW EACH SECTION.

AVAILABILITY: ONTARIO, MINISTRY OF THE ENVIRONMENT, PERSONNEL SERVICES BRANCH, 135 ST. CLAIR AVENUE, WEST, TORONTO, ONTARIO, M4V 2P5, CANADA

INSTITUTION NAME: ONTARIO, MINISTRY OF THE ENVIRONMENT.

IRIS ACCESSION NUMBER: EW005548

PUBLICATION DATE: DEC 79

TITLE: TRAINING MANUAL. SEWER AND WATERMAIN CONSTRUCTION INSPECTORS COURSE.

DESCRIPTOR: *CONSTRUCTION; INSPECTORS; *INSTRUCTIONAL MATERIALS; RECORDKEEPING; SANITARY SEWERS; *SEWERS; STORM SEWERS; SURVEYING; *TRAINING MANUALS; *WATERMAINS; *WASTEWATER COLLECTION; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: 266P.

ABSTRACT: THE TOPIC CONTENT OF THIS MANUAL HAS BEEN PREPARED TO ASSIST INSPECTORS CONCERNED WITH THE CONSTRUCTION OF LINEAR TYPE SERVICES. TOPICS DISCUSSED INCLUDE: ROLE OF THE INSPECTOR, RECORDS, BASIC SOILS, ENVIRONMENTAL CONSIDERATIONS, CONSTRUCTION SAFETY, SANITARY AND STORM SEWERS, WATERMAINS, CONSTRUCTION SURVEYING, EXCAVATION AND BACKFILL, PIPE INSTALLATION, LEAKAGE AND PRESSURE TESTING OF GRAVITY SEWERS, SEWAGE FORCEMAINS, AND WATERMAINS, DISINFECTION OF WATERMAINS, RESTORATION, TUNNELLING, BLASTING CONTROL, AND BASIC ELEMENTS OF CONTRACT DOCUMENTS. 17 FIGURES AND 5 APPENDICES ARE INCLUDED.

AVAILABILITY: MR G. D. DOUGALL, P ENG., TREASURER, M.E.A. COURT HOUSE, P.O. BOX 55, BROCKVILLE, ONTARIO K6V 5V8, CANADA

INSTITUTION NAME: MINISTRY OF THE ENVIRONMENT, ONTARIO, MUNICIPAL ENGINEERS ASSOCIATION.

IRIS ACCESSION NUMBER: EW005549

PUBLICATION DATE: AUG 79

TITLE: TRAINING MANUAL: WATER TREATMENT OPERATION.

DESCRIPTOR: *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *OPERATIONS (WATER); PIPES; PLANNING; REFERENCE MANUALS; *TESTBOOKS; *TRAINING MANUALS; *WATER TREATMENT; *WATER DISTRIBUTION SYSTEMS; *WATERMAINS; WATER QUALITY

DESCRIPTIVE NOTE: 515P.

ABSTRACT: THIS MANUAL HAS BEEN PREPARED AS A HOME STUDY AND REFERENCE MANUAL AND AS A TEXT FOR WORKSHOPS. THE PRINCIPLE OBJECTIVE IS TO UPGRADE THE KNOWLEDGE AND SKILLS OF WATER DISTRIBUTION STAFF. TOPICS INCLUDE: WATER SOURCES AND TREATMENT; TREATED WATER QUALITY; WATER QUALITY PROBLEMS; BASIC HYDRAULICS; FACTORS IN PLANNING AND DESIGN; EXCAVATION INSTALLATION, AND RESTORATION; WATERMAIN PIPES AND JOINTS; WATERMAIN APPURTENANCES; SERVICE CONNECTIONS AND SIZING; SAFETY; LEAK DETECTION AND FIRE FLOW TESTING; WATER MAIN BREAKS AND REPAIRS; CLEANING DISINFECTION, AND TESTING; CROSS CONNECTIONS; CORROSION; PLANS AND RECORDS; AND ELECTRICAL THAWING. A LARGE NUMBER OF FIGURES, TABLES, AND APPENDICES ACCOMPANY THE MANUAL.

AVAILABILITY: ONTARIO, MINISTRY OF THE ENVIRONMENT, PERSONNEL SERVICES BRANCH, 135 ST CLAIR AVENUE, WEST, TORONTO, ONTARIO M4V 2P5, CANADA

INSTITUTION NAME: MINISTRY OF THE ENVIRONMENT, ONTARIO.

IRIS ACCESSION NUMBER: EW005550

PUBLICATION DATE: 80

TITLE: MEMBRANE AND ULTRAFILTRATION TECHNOLOGY, 1980.

PERSONAL AUTHOR: SCOTT, JEANETTE

DESCRIPTOR: *CHEMICAL TECHNOLOGY; DIALYSIS; ELECTROLYTIC PROCESSES; HEMODIALYSIS; *INDUSTRIES; *MEMBRANES; MEDICINE; *PURFICATION; *TECHNOLOGY; *ULTRAFILTRATION; *WATER PURFICATION; *WATER TREATMENT

DESCRIPTIVE NOTE: 404P. PRICE: $48.00

ABSTRACT: THIS BOOK DESCRIBES VARIOUS TYPES OF MEMBRANES, THEIR UTILITY AND THEIR PRACTICAL APPLICATIONS IN VARIOUS INDUSTRIES. CHAPTERS ARE INCLUDED ON MULTIPURPOSE MEMBRANES, LIQUID MEMBRANES, GAS SEPARATION AND PURFICATION, ELECTROLYTIC PROCESSES, HEMODIALYSIS AND WATER PURIFICATION.

AVAILABILITY: NOYES DATA CORPORATION, NOYES BUILDING, MILL ROAD AT GRAND AVENUE,PARK RIDGE, NJ 07656

IRIS ACCESSION NUMBER: EW005551
PUBLICATION DATE: 79

TITLE: ENERGY FROM SOLID WASTE 1979, RECENT DEVELOPMENTS.

PERSONAL AUTHOR: DOMINO, FRANCIS A.

DESCRIPTOR: *ENERGY; *ENERGY CONSERVATION; ENERGY RECOVERY; MUNICIPALITIES; POLLUTION CONTROL; *SOLID WASTES; TECHNOLOGY; UTILITIES; *WASTE DISPOSAL; WASTE PROCESSING

DESCRIPTIVE NOTE: 321P. PRICE: $36.00

ABSTRACT: THIS BOOK REVIEWS THE MANY PHASES OF WASTE DISPOSAL AND ENERGY RECOVERY INCLUDING RECENTLY TESTED TECHNOLOGY. IT DESCRIBES PLANTS PRESENTLY PRODUCING POWER FROM REFUSE WHILE ALSO SALVAGING MATERIAL. TECHNOLOGICAL DIFFICULTIES ARE ALSO DISCUSSED. PRESENTED IS A PROPOSED WASTE UTILIZATION SYSTEM FOR THE CITY OF NEW YORK, AS AN EXAMPLE THAT COULD BE APPLIED TO OTHER CITIES.

AVAILABILITY: NOYES DATA CORPORATION, NOYES BUILDING, MILL ROAD AT GRAND AVENUE, PARK RIDGE, NJ 07656

IRIS ACCESSION NUMBER: EW005552

PUBLICATION DATE: 79

TITLE: INDUSTRIAL WASTEWATER CLEANUP 1979, RECENT

DEVELOPMENTS.

PERSONAL AUTHOR: YEHASKEL, ALBERT

DESCRIPTOR: ENVIRONMENTAL PROTECTION AGENCY; *ENVIRONMENT; *HAZARDOUS WASTES; *INDUSTRIAL WASTES; *LEGISLATION; *POLLUTION; *STANDARDS; *STREAMS; WATER RESOURCES; *WATER POLLUTION CONTROL; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 308P. PRICE: $39.00

ABSTRACT: BEFORE 1984, WHEN THE U.S. ENVIRONMENTAL PROTECTION AGENCY'S STRICT SAFE WATER STANDARDS BECOME EFFECTIVE, MUCH MORE WILL HAVE TO BE DONE. INDUSTRIES WHICH DISCHARGE HAZARDOUS SUBSTANCES DAILY INTO OUR STREAMS ARE RISING TO THE CHALLENGE. THIS BOOK DESCRIBES 275 WASTEWATER CLEANUP METHODOLOGIES WHICH ARE ALREADY BEING IMPLEMENTED. THE PROCEDURES ENCOMPASS FILTRATION AND OTHER METHODS DEVELOPED DURING THE LAST TWO YEARS, WHICH USE SOPHISTICATED TECHNOLOGY AND SELECT CHEMICALS. THEY CONSTITUTE AN INVALUABLE GUIDE TO MANAGERS IN SCORES OF INDUSTRIES WHO MUST AMELIORATE EXISTING CONDITIONS.

AVAILABILITY: NOYES DATA CORPORATION, NOYES BUILDING, MILL ROAD AT GRAND AVENUE PARK RIDGE, NJ 07656

IRIS ACCESSION NUMBER: EW005553

PUBLICATION DATE: 79

TITLE: SLUDGE DISPOSAL BY LANDSPREADING TECHNIQUES 1979.
PERSONAL AUTHOR: TORREY, S.

DESCRIPTOR: AGRICULTURE; CONSERVATION; LAND USE; *LAND APPLICATION; MUNICIPALITIES; *POLLUTION; *SLUDGE DISPOSAL; *SLUDGE; *TOXIC WASTES; UTILITIES; *WASTES; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 372P. PRICE: $36.00

ABSTRACT: THIS BOOK DISCUSSES LAND APPLICATION OF SLUDGE. IF INDUSTRIAL PRETREATMENT PROGRAMS ARE INPLEMENTED, MUNICIPAL SLUDGE COULD EFFECTIVELY CONDITION SOIL, STIMULATE PLANT AND FOREST GROWTH, AND RENOVATE STRIP-MINED LANDS. LAND APPLICATION OF SLUDGE COULD SATISFY NEARLY 5% OF THIS NATIONS FERTILIZER NEEDS. THERE ARE RISKS, OF COURSE, FROM VIRUSES, BACTERIA, TOXIC METALS AND COMMON POLLUTANTS, WHICH MANDATE PRECAUTIONS. THIS BOOK ASSESSES THE TOXIC AND ENVIRONMENTAL EFFECTS WHILE EVALUATING THE AGRICULTURAL BENEFITS. IT DISCUSSES CRITERIA FOR SELECTING A LANDSPREADING SITE AND THE TECHNIQUES OF OPERATION.

AVAILABILITY: NOYES DATA CORPORATION, NOYES BUILDING, MILL ROAD AT GRAND AVENUE, PARK RIDGE, NJ 07656

IRIS ACCESSION NUMBER: EW005554

PUBLICATION DATE: 80

TITLE: BIODEGRADATION TECHNIQUES FOR INDUSTRIAL ORGANIC WASTES 1980.

PERSONAL AUTHOR: DERENZO, D. J.

DESCRIPTOR: *BIOLOGICAL TREATMENT; *CHEMICAL TECHNOLOGY; ENGINEERING; *HAZARDOUS WASTES; *INDUSTRIAL WASTES; MANAGEMENT; *ORGANIC COMPOUNDS; *ORGANIC WASTES; *POLLUTION TECHNOLOGY; SLUDGE; *TOXIC WASTES; *UTILITIES; *WASTEWATER TREATMENT; *WASTE DISPOSAL; WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 358P. PRICE: $28.00

ABSTRACT: THIS BOOK PROVIDES ENGINEERING AND WASTE MANAGEMENT PERSONNEL WITH DATA ON THE BIOLOGICAL TREATMENT OF HAZARDOUS AND TOXIC ORGANIC COMPOUNDS IN PROBLEMATIC INDUSTRIAL WASTE EFFLUENTS. SELECTED BIOLOGICAL TREATMENT OPERATIONS WHICH CAN SUCCESSFULLY HANDLE THOSE WASTES NOT READILY TREATABLE BY CONVENTIONAL PROCESSES ARE IDENTIFIED AND CHARACTERIZED.

AVAILABILITY: NOYES DATA CORPORATION, NOYES BUILDING, MILL ROAD AT GRAND AVENUE, PARK RIDGE, NJ 07656

IRIS ACCESSION NUMBER: EW005555

PUBLICATION DATE: 80
TITLE: PROTECTIVE BARRIERS FOR CONTAINMENT OF TOXIC MATERIAL 1980.

PERSONAL AUTHOR: FUNG, R.

DESCRIPTOR: *CONTAMINANT; ENGINEERING; *HAZARDOUS WASTES; *LANDFILLS; *LAGOONS; *PROTECTIVE BARRIERS; *POLLUTION TECHNOLOGY; *TOXIC MATERIALS; *TOXIC WASTES; *WASTES; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 288P. PRICE: $39.00

ABSTRACT: THE BOOK PROVIDES INFORMATION ON PHYSICAL METHODS FOR TOXIC WASTE CONTAINMENT. DESCRIBED IS AN ASPECT OF WASTE TREATMENT WHICH IS RECEIVING INCREASING ATTENTION - THE USE OF PROTECTIVE, UNPERMEABLE BARRIERS TO PREVENT OR MINIMIZE THE ESCAPE OF TOXIC POLLUTANTS FROM DISPOSAL SITES. MANMADE AND NATURAL LINING AND COVER MATERIALS FOR LAGOONS AND LANDFILLS, AND SOLIDIFICATION/STABILIZATION TECHNIQUES ARE DETAILED, AS WELL AS LISTINGS OF ACTUAL INSTALLATIONS.

AVAILABILITY: NOYES DATA CORPORATION, NOYES BUILDING, MILL ROAD AT GRAND AVENUE, PARK RIDGE, NJ 04656

IRIS ACCESSION NUMBER: EW005568

PUBLICATION DATE: SEP 80

TITLE: LAS VEGAS BETS ON A SURE WINNER.

PERSONAL AUTHOR: GILBERT, JEROME B.; AND OTHERS

DESCRIPTOR: CASE STUDIES; COST EFFECTIVENESS; *DESIGN; EFFLUENTS; ENERGY EFFICIENCY; *FACILITIES; LAS VEGAS; *MODIFICATIONS; NEVADA; *PLANNING; STANDARDS; *WASTEWATER TREATMENT; WATER QUALITY

DESCRIPTIVE NOTE: 16-21P.

ABSTRACT: SIX TREATMENT ALTERNATIVES INVOLVING THREE WASTEWATER TREATMENT PLANTS WERE ANALYZED WHEN LAS VEGAS, NEVADA SET OUT TO RAISE EFFLUENT STANDARDS AND INCREASE CAPACITY. THIS WAS ONLY PART OF A COMPREHENSIVE STUDY OF WATER QUALITY AND WASTEWATER TREATMENT FACILITIES RESULTING FROM THE SETTLEMENT OF A COURT SUIT. THE MAIN ISSUE UNDERLYING THE SUIT WAS THE NEED FOR ADVANCED WASTEWATER TREATMENT PRIOR TO DISCHARGE INTO LAS VEGAS WASH, A TRIBUTARY TO LAKE MEAD. STUDIES ON COST EFFECTIVENESS, FUNCTIONAL LIMITATIONS, ENVIRONMENTAL IMPACT, AND ENERGY EFFICIENCY DETERMINED THE BEST WASTEWATER TREATMENT MODIFICATION FOR LAS VEGAS.

AVAILABILITY: WATER AND WASTE ENGINEERING, V17 N9

IRIS ACCESSION NUMBER: EW005569
PUBLICATION DATE: SEP 80

TITLE: FEDERAL WATER PROGRAMS NEED A BETTER BALANCE.

PERSONAL AUTHOR: HECKROTH, CHARLES W.

DESCRIPTOR: CONFERENCE REPORTS; DRINKING WATER; *ENVIRONMENTAL PROTECTION AGENCY; *ENVIRONMENTAL REGULATIONS; *FEDERAL PROGRAMS; MANAGEMENT; RESEARCH NEEDS; *STANDARDS; UTILITIES; WATER POLLUTION CONTROL; *WATER QUALITY; WATER UTILITY COUNCIL

DESCRIPTIVE NOTE: 30-32,35P.

ABSTRACT: THIS ARTICLE EXPRESSES THE OPINION THAT THE GOVERNMENT, SPECIFICALLY THE ENVIRONMENTAL PROTECTION AGENCY, USES REGULATIONS THAT DO NOT HAVE RATIONAL STANDARDS. ATTENTION IS FOCUSSED ON THE BILL H.R.4509 WHICH WOULD CHANGE THE CRITERIA, UNDER WHICH THE EPA REGULATES SUBSTANCES IN DRINKING WATER. ALSO DISCUSSED IS THE WATER UTILITY COUNCIL AND ITS RESPONSIBILITY TO INFLUENCE LEGISLATION. FINALLY, PROBLEMS AND POSSIBLE SOLUTIONS TO SOME OF THE DILEMMAS FACING SMALL UTILITIES ARE PRESENTED.

AVAILABILITY: WATER & WASTE ENGINEERING, V17 N9

IRIS ACCESSION NUMBER: EW005570

PUBLICATION DATE: SEP 80

TITLE: WEIGH THE ORGANICS CONTROL ALTERNATIVES.

PERSONAL AUTHOR: DIGENNARO, LISA J.

DESCRIPTOR: *CASE STUDIES; COAGULATION; CONTROL; *DRINKING WATER; EQUIPMENT; *GRANULAR ACTIVATED CARBON; LABORATORY TECHNIQUES; *ORGANICS; OZONATION; *POWDERED ACTIVATED CARBON; *RESEARCH; SAFETY; STUDIES; SYNTHETIC ORGANIC CHEMICALS; TESTING METHODS; *TRIHALOMETHANES; WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 36-42P.

ABSTRACT: TRIHALOMETHANES AND SYNTHETIC ORGANIC CHEMICALS ARE RELATIVELY NEW HAZARDS TO DRINKING WATER SAFETY. AT THE RECENT AMERICAN WATER WORKS ASSOCIATION (AWWA) CONFERENCE IN ATLANTA, GEORGIA, A NUMBER OF SPEAKERS DISCUSSED ORGANICS CONTROL METHODS, INCLUDING GAC AND GAC REGENERATION, PAC, OZONATION, AND COAGULATION. HIGHLIGHTED IN THE ARTICLE ARE RESULTS OF CASE STUDIES AND RESEARCH UTILIZING THESE APPROACHES TO ORGANICS CONTROL.

AVAILABILITY: WATER AND WASTE ENGINEERING, V17 N9

IRIS ACCESSION NUMBER: EW005571

PUBLICATION DATE: SEP 80
TITLE: CUT O&M COSTS THROUGH VALUE ENGINEERING.

PERSONAL AUTHOR: VONDRICK, ARTHUR R.

DESCRIPTOR: COST EFFECTIVENESS; *COST; *DESIGN; ECONOMIC FACTORS; ENERGY CONSERVATION; ENGINEERING; *MAINTENANCE; MANPOWER UTILIZATION; *OPERATIONS; PROBLEM SOLVING; SKILL DEVELOPMENT; *VALUE ENGINEERING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 58-59P.

ABSTRACT: AS COSTS RISE, THE ROLE OF VALUE ENGINEERING IN ELIMINATING POTENTIAL OPERATIONS AND MAINTENANCE PROBLEMS BECOMES MORE AND MORE IMPORTANT. VALUE ENGINEERING NOT ONLY HELPS REDUCE CAPITAL EXPENSES, IT EXAMINES A PLANTS LIFE CYCLE COSTS AND RECOMMENDS OPERATIONS AND MAINTENANCE-SAVING MODIFICATIONS. CASE STUDIES, COST EFFECTIVENESS, AND EVIDENCE OF ENERGY SAVINGS ARE ALSO PRESENTED.

AVAILABILITY: WATER AND WASTE ENGINEERING, V17 N9

IRIS ACCESSION NUMBER: EW005572

PUBLICATION DATE: SEP 80

TITLE: WASTEWATER TREATMENT PLANT WORKS OVERTIME.

PERSONAL AUTHOR: FRITCH, GENE H.

DESCRIPTOR: AMANA REFRIGERATION, INC.; *DESIGN; EQUIPMENT; *FACILITIES; HEAVY METALS; *INDUSTRIAL WASTES; *IOWA; *MANAGEMENT; MUNICIPAL WASTES; *OPERATIONS (WASTEWATER); PRIVATE OWNERSHIP; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 70-73P.

ABSTRACT: THIS ARTICLE EXAMINES THE WASTEWATER TREATMENT PLANT DESIGNED AND OPERATED BY THE AMANA REFRIGERATION COMPANY IN MIDDLE AMANA, IOWA. THE FACILITY HANDLES THE INDUSTRIAL WASTES FROM AMANAS APPLIANCE FACTORY, AND IS ALSO DESIGNED TO TREAT MUNICIPAL WASTES FROM A NEARBY TOWN. DISCUSSION INCLUDES PLANT LAYOUT, TREATMENT OF DOMESTIC WASTES AND HEAVY METALS AND THE PRIVATE OWNERSHIP OF THE PLANT.

AVAILABILITY: WATER AND WASTE ENGINEERING, V17 N9

IRIS ACCESSION NUMBER: EW005573

PUBLICATION DATE: SEP 80

TITLE: CONSIDER THE MANY REASONS FOR REUSE.

PERSONAL AUTHOR: VON DOHREN, RAY

DESCRIPTOR: *BENEFITS; CALIFORNIA; CONSERVATION; *COST EFFECTIVENESS; ECONOMIC FACTORS; IRRIGATION; LAND USE; *RECYCLING; *REUSE; *WASTEWATER RECLAMATION; WATER QUALITY; *WATER RESOURCES; *WATER REUSE

DESCRIPTIVE NOTE: 74-78P.

ABSTRACT: RECLAMATION/REUSE IN NORTHERN CALIFORNIA COULD LEAD TO YEAR-ROUND AGRICULTURE, FEWER POPULATION GROWTH PROBLEMS AND THE PRESERVATION OF OPEN LAND IN ADDITION TO INCREASED WATER SUPPLY AND BETTER WATER QUALITY. THESE AND OTHER BENEFITS ARE DISCUSSED IN THIS ARTICLE WHICH ADDRESSES THE OVERALL COST EFFECTIVENESS OF WASTEWATER RECLAMATION/REUSE.

AVAILABILITY: WATER AND WASTE ENGINEERING, V17 N9

IRIS ACCESSION NUMBER: EW005574

PUBLICATION DATE: SEP 80

TITLE: A GUIDE TO REGULATIONS AND GUIDANCE FOR THE UTILIZATION AND DISPOSAL OF MUNICIPAL SEWAGE SLUDGE.

DESCRIPTOR: COMPOSTING; COSTS; ENVIRONMENTAL LAWS; ENVIRONMENTAL REGULATIONS; *FEDERAL REGULATIONS; *GUIDELINES; LANDFILLS; MAINTENANCE; *MUNICIPAL WASTES; PLANNING; SITE SELECTION; *SLUDGE DISPOSAL; SLUDGE UTILIZATION; *SLUDGE; *WASTEWATER TREATMENT; *WASTE DISPOSAL; WASTE MANAGEMENT; WASTE TREATMENT

DESCRIPTIVE NOTE: 48P.

ABSTRACT: THIS DOCUMENT HAS BEEN PREPARED TO PROVIDE ENVIRONMENTAL PROTECTION AGENCY (EPA) REGIONAL ADMINISTRATORS, MANAGERS AND OPERATORS OF PUBLICLY OWNED TREATMENT WORKS (POTW'S), CONSULTANT ENGINEERS, STATE AND LOCAL REGULATORY AUTHORITIES AND OTHERS WITH A CONCISE OUTLINE OF CURRENT EPA REGULATIONS AND GUIDELINES THAT NEED TO BE ADDRESSED, AND THE PROBLEMS FREQUENTLY ENCOUNTERED WHEN PLANNING AND OPERATING A SEWAGE SLUDGE DISPOSITION (UTILIZATION AND/OR DISPOSAL) FACILITY. THIS DOCUMENT IS A (NOT A SUPPLEMENT TO THESE REGULATIONS AND GUIDELINES SUBSTITUTE) AND SHOULD AID IN THE SELECTION AND IMPLEMENTATION OF AN APPROPRIATE DISPOSITION TECHNIQUE. COVERAGE OF EACH METHOD DISCUSSED INCLUDES: (1) BACKGROUND INFORMATION, (2) APPLICABLE LAWS, REGULATIONS AND GUIDELINES, (3) PROCEDURE NEEDED FOR IMPLEMENTING THE DISPOSITION METHOD, (4) PROBLEMS FREQUENTLY ASSOCIATED WITH THE DISPOSITION METHOD THAT ARE NOT COVERED BY REGULATIONS AND SOLUTIONS TO THESE PROBLEMS, AND (5) REFERENCES.

AVAILABILITY: GENERAL SERVICES ADMINISTRATION (8BRC), CENTRALIZED MAILING LISTS SERVICES, BUILDING 41, DENVER FEDERAL CENTER, DENVER, CO 80225

INSTITUTION NAME: UNITED STATES ENVIRONMENTAL PROTECTION AGENCY.

IRIS ACCESSION NUMBER: EW005575

TITLE: SEWERS.

DESCRIPTOR: *AUDIOVISUAL AIDS; CASE STUDIES; DESIGN; *FILMS; MAINTENANCE; *MUNICIPAL WASTES; *OPERATION (WASTEWATER); PLANNING; POLLUTION CONTROL; SEWERS; *SEWER SYSTEMS; STORM SEWERS; WASHINGTON, DC; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 16MM, 20 MINUTES,PRICE: $300.00 PURCHASE, $30.00 RENTAL

ABSTRACT: THIS FILM DEPICTS THE BIG CITY'S WASTEWATER COLLECTION SYSTEMS. OLDER SECTIONS OF THE CITY ARE SERVED BY COMBINED SEWERS WHICH CARRY BOTH SANITARY SEWAGE AND STORM WATER DRAINAGE. NEWER SECTIONS HAVE SANITARY SEWERS WHICH CARRY ONLY THE WASTES FROM PEOPLE'S HOMES AND OFFICES. THE DESIGN AND MAINTENANCE OF THESE SEWER SYSTEMS DETERMINES WHETHER THERE WILL BE OVERFLOWS AND RESULTANT POLLUTION.

AVAILABILITY: STUART FINLEY, INC. 3428 MANSFIELD ROAD, FALLS CHURCH, VA 22041

IRIS ACCESSION NUMBER: EW005576

TITLE: WHERE THE SEWAGE GOES.

DESCRIPTOR: *AUDIOVISUAL AIDS; CASE STUDIES; DESIGN; EFFLUENTS; *FACILITIES; *FILMS; MUNICIPAL WASTES; *OPERATIONS (WASTEWATER); POLLUTION CONTROL; SLUDGE; SLUDGE DISPOSAL; *TERTIARY TREATMENT; WASHINGTON, DC; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 16MM, 22 MINUTES, PRICE: $300.00

PURCHASE, $30.00 RENTAL

ABSTRACT: THIS FILM SHOWS A MODERN ADVANCED WASTEWATER TREATMENT PLANT DESIGNED TO PROVIDE TERTIARY TREATMENT FOR THE BIG CITY'S WASTES. IT IS A COMPLEX PROCESS WHICH IS DESIGNED TO SEPARATE THE GRAY MIXTURE OF INCOMING WASTES INTO A THICK SLUDGE AND A CLEAR EFFLUENT. THE SLUDGE MUST BE DISPOSED OF SATISFACTORILY AND THE EFFLUENT MUST BE KEPT FREE OF NUTRIENTS WHICH WOULD CREATE SECONDARY POLLUTION IN A DISCHARGE WATERWAY.

AVAILABILITY: STUART FINLEY, INC., 3428 MANSFIELD ROAD, FALLS CHURCH, VA 22041

IRIS ACCESSION NUMBER: EW005577

TITLE: A RIVER CALLED POTAMAC.

DESCRIPTOR: *AUDIOVISUAL AIDS; CASE STUDIES; *FILMS; *MANAGEMENT; MUNICIPALITIES; *POTOMIC RIVER; RIVERS; STORAGE RESERVOIRS; WASHINGTON, DC; *WATER POLLUTION CONTROL; *WATER QUALITY; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 16MM, 28 MINUTES, PRICE: $350.00 PURCHASE, $30.00 RENTAL

ABSTRACT: THIS FILM STUDIES ALL OF THE WATER RESOURCES AND WATER QUALITY MANAGEMENT PROGRAMS OF A MAJOR RIVER VALLEY AND ILLUSTRATES HOW THEY RELATE TO A BIG CITY. UPSTREAM WATER SUPPLY POTENTIAL SUCH AS STORAGE RESERVOIRS AND UPSTREAM SOURCES OF POLLUTION AND POLLUTION CONTROL PROGRAMS RELATE TO THE CITY IN THE SAME WAY THAT THE CITY'S OWN ENGINEERING SYSTEMS AFFECT DOWNSTREAM COMMUNITIES.

AVAILABILITY: STUART FINLEY, INC., 3428 MANSFIELD ROAD, FALLS CHURCH, VA 22041

IRIS ACCESSION NUMBER: EW005578

TITLE: LANDFILLS.

DESCRIPTOR: *AUDIOVISUAL AIDS; CASE STUDIES; DESIGN; *FILMS; LANDFILLS; LAND APPLICATION; *LAND USE; POLLUTION CONTROL; REFUSE DISPOSAL; *SOLID WASTE DISPOSAL; TRANSPORTATION SYSTEM; WASHINGTON, DC; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 16MM, 12 MINUTES, PRICE: $175.00 PURCHASE, $17.50 RENTAL

ABSTRACT: THIS FILM ILLUSTRATES A MODERN DISPOSAL SYSTEM WHICH BRINGS THE REFUSE TO THE DISPOSAL AREA. UNTIL RECENTLY, SOLID WASTE DISPOSAL SIMPLY CONVERTED ONE KIND OF POLLUTION INTO ANOTHER FORM OF POLLUTION, SUCH AS A DUMP OR AIR POLLUTION FROM BURNING WASTES. TODAY'S BIG CITY MUST DESIGN A SYSTEM WHICH DISPOSES OF GARBAGE AND TRASH WITHOUT INSULTING AIR, WATER, OR LAND.

AVAILABILITY: STUART FINLEY, INC., 3428 MANSFIELD ROAD, FALLS CHURCH, VA 22041

IRIS ACCESSION NUMBER: EW005579

PUBLICATION DATE: JAN 80

TITLE: SMALL WASTEWATER SYSTEMS. ALTERNATIVE SYSTEMS FOR SMALL COMMUNITIES AND RURAL AREAS.

DESCRIPTOR: ALTERNATIVE WASTEWATER SYSTEMS; CONSERVATION; *FACILITIES; FEDERAL PROGRAMS; *GUIDES; LAND APPLICATION; LAND USE; PLANNING; *RURAL AREAS; *SEPTIC SYSTEMS; SEWERS; *SMALL COMMUNITIES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 8P.

ABSTRACT: THIS PUBLICATION ATTEMPTS TO ACQUAINT THE LAYPERSON WITH SOME ALTERNATE WASTEWATER SYSTEMS FOR SMALL COMMUNITIES AND RURAL AREAS. TWENTY-ONE DIFFERENT SYSTEMS ARE DESCRIBED AND SKETCHED WITH POSSIBLE LOCATIONS INDICATED ON A HYPOTHETICAL COMMUNITY MAP. IN ADDITION, BRIEF INFORMATION IS PRESENTED ON THE EPA CONSTRUCTION GRANTS PROGRAM FOR ALTERNATIVE SYSTEMS.

AVAILABILITY: UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF WATER PROGRAMS OPERATIONS, WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW005581

PUBLICATION DATE: 80

TITLE: EVERYBODYS PROBLEM: HAZARDOUS WASTE.

DESCRIPTOR: *CONTAMINATION; *CASE HISTORIES; *ENVIRONMENTAL PROTECTION AGENCY; ENVIRONMENT; ECOSYSTEMS; *HAZARDOUS WASTES; MANAGEMENT; POLLUTION; *SOLID WASTES; *WASTE DISPOSAL; *WATER POLLUTION

DESCRIPTIVE NOTE: 36P.

ABSTRACT: THIS HANDBOOK DISCUSSES THE PROBLEMS THAT IMPROPER DISPOSAL OF HAZARDOUS WASTE CAN CAUSE AND USES CASE HISTORIES TO ILLUSTRATE THE EFFECTS ON GROUND WATER, SURFACE WATER RESOURCES, THE ATMOSPHERE, FOOD CHAINS AND PEOPLE. THE NATIONAL PROGRAM TO CONTROL HAZARDOUS WASTES IS DESCRIBED, HAZARDOUS WASTES ARE DEFINED, APPROPRIATE MANAGEMENT PROCEDURES ARE SUGGESTED, AND KEY PROBLEM AREAS OUTLINED. THE NEED FOR INFORMING AND INVOLVING THE PUBLIC IS STRESSED.

AVAILABILITY: UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF WATER AND WASTE MANAGEMENT, WASHINGTON, DC 20460

INSTITUTION NAME: TECHNICAL INFORMATION AND COMMUNICATIONS BRANCH OF EPA'S OFFICE OF SOLID WASTE.

IRIS ACCESSION NUMBER: EW005582

PUBLICATION DATE: AUG 80

TITLE: ENVIRONMENTAL RISK ASSESSMENT.

PERSONAL AUTHOR: WHYTE, ANE V.; BURTON, IAN

DESCRIPTOR: *ENVIRONMENTAL RISK ASSESSMENT; *ENVIRONMENTAL RISKS; *HEALTH; MODELS; MONITORING; NATURAL RESOURCES; PROBABILITY; *PUBLIC HEALTH; *RISKS; *RISK ASSESSMENT; RISK MANAGEMENT; *RISK EVALUATION

DESCRIPTIVE NOTE: PRICE: $30.00, ISBN 0471-27701-0

ABSTRACT: ENVIRONMENTAL RISK ASSESSMENT IS AN INNOVATIVE METHOD AND MEANS FOR THE EVALUATION OF THE ECONOMIC AND SCIENCE-BASED ALTERNATIVES OF PROCESSES APPLIED IN PROTECTING HUMAN HEALTH. THIS BOOK DEFINES WHAT CONSTITUTES AN ENVIRONMENTAL RISK; DESCRIBES MODELS, BOUNDARIES AND CONTEXTS FOR EVALUATING THE PROBLEM; CONTAINS MEANS OF ESTIMATING AND IDENTIFYING RISKS; CONSIDERS RISK EVALUATIONS IN THE LIGHT OF NATIONAL POLICY; DISUSSES ENVIRONMENTAL RISK MANAGEMENT; AND STRESSES THE NECESSITY FOR INTERNATIONAL COLLABORATION IN RISK MANAGEMENT.

AVAILABILITY: JOHN WILEY & SONS, INC., ONE WILEY DRIVE, SOMERSET, NJ 08873

IRIS ACCESSION NUMBER: EW005583

PUBLICATION DATE: SEP 79

TITLE: WATER DISTRIBUTION SYSTEMS OPERATION AND MAINTENANCE.

DESCRIPTOR: EQUIPMENT; EQUIPMENT REPAIR; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *OPERATIONS (WATER); *RECORD KEEPING; REPAIR; *SAFETY; *TRAINING MANUALS; *WATER DISTRIBUTION SYSTEMS; WATER QUALITY; WATER STORAGE; WATER UTILITIES

DESCRIPTIVE NOTE: 326P.

ABSTRACT: THIS TRAINING GUIDE WAS DEVELOPED TO ACCOMPANY A COURSE DESIGNED TO PROVIDE A BASIC BACKGROUND IN THEORY, OPERATION, REPAIR AND MAINTENANCE OF WATER DISTRIBUTION SYSTEMS. THE FOLLOWING EIGHT TRAINING MODULES ARE INCLUDED IN THIS GUIDE: (1) OVERVIEW OF WATER PRODUCTION, DISTRIBUTION AND STORAGE, (2) WATER QUALITY, (3) INSTALLATION, REPAIR AND MAINTENANCE OF WATER MAINS, (4) REPAIR AND MAINTENANCE OF EQUIPMENT, (5) SERVICE CONNECTIONS AND WATER METERS, (6) CROSS CONNECTION CONTROL, (7) WINTER OPERATION, AND (8) SAFETY AND RECORD KEEPING.

AVAILABILITY: MINNESOTA DEPARTMENT OF HEALTH, 717 DELAWARE STREET, S.E. MINNEAPOLIS, MINNESOTA 55440

INSTITUTION NAME: MINNESOTA DEPARTMENT OF HEALTH.

IRIS ACCESSION NUMBER: EW005584

PUBLICATION DATE: JUL 80

TITLE: MANY WATER QUALITY STANDARD VIOLATIONS MAY NOT BE SIGNIFICANT ENOUGH TO JUSTIFY COSTLY PREVENTIVE ACTIONS.

DESCRIPTOR: *ADVANCED WASTEWATER TREATMENT; *COST EFFECTIVENESS; CONSTRUCTION; ENVIRONMENTAL PROTECTION AGENCY; *FACILITIES; FUNDING; MUNICIPALITIES; *REGULATIONS; *STANDARDS; *WASTEWATER TREATMENT; *WATER QUALITY; *WATER QUALITY STANDARDS

DESCRIPTIVE NOTE: 78P. PRICE: SINGLE COPY FREE OF CHARGE. MULTIPLE COPIES $1.00 PER COPY.

ABSTRACT: ADVANCED WASTE TREATMENT FOR MUNICIPAL SEWAGE MAY NOT BE WORTH THE TREMENDOUS COSTS ESTIMATED BY THE ENVIRONMENTAL PROTECTION AGENCY AT $10 BILLION UNLESS IT WILL MAKE A SUBSTANTIAL DIFFERENCE TO WATER QUALITY. IN SETTING OR REVISING WATER QUALITY STANDARDS, STATES GENERALLY DO NOT CONSIDER COSTS, AND MANY STANDARDS ARE BASED ON QUESTIONABLE DATA. A NUMBER OF COSTLY ADVANCED WASTE TREATMENT PLANTS MAY HAVE LITTLE EFFECT ON WATER QUALITY. THIS REPORT PRESENTS A NUMBER OF OPTIONS TO THE CONGRESS CONCERNING THE FUNDING OF ADVANCED WASTE TREATMENT PROJECTS. IT ALSO MAKES RECOMMENDATIONS TO THE ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY TO HELP IMPROVE THE WAY WATER QUALITY STANDARDS ARE SET AND IMPLEMENTED AND THE PROCEDURES USED IN ASSESSING THE NEED FOR ADVANCED WASTE TREATMENT.

AVAILABILITY: SINGLE COPY-U.S. GENERAL ACCOUNTING OFFICE, DISTRIBUTION SECTION, ROOM 1518, 441 G STREET, NW, WASHINGTON, DC 20548

IRIS ACCESSION NUMBER: EW005585

PUBLICATION DATE: OCT 80

TITLE: DESIGN MANUAL. ONSITE WASTEWATER TREATMENT AND DISPOSAL SYSTEM.

DESCRIPTOR: *CONSTRUCTION; *DESIGN; EQUIPMENT; *FACILITIES; *INSTRUCTIONAL MATERIALS; MANAGEMENT; *ONSITE WASTEWATER TREATMENT; OPERATIONS; SITE EVALUATION; *WASTEWATER DISPOSAL; *WASTEWATER TREATMENT; WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 391P.

ABSTRACT: THIS DOCUMENT PROVIDES TECHNICAL INFORMATION ON ONSITE WASTEWATER TREATMENT AND DISPOSAL SYSTEMS. THE INTENDED AUDIENCE FOR THIS MANUAL INCLUDES THOSE INVOLVED IN THE DESIGN, CONSTRUCTION, OPERATION, MAINTENANCE, AND REGULATION OF ONSITE WASTEWATER SYSTEMS. CHAPTERS IN THIS DESIGN MANUAL INCLUDE: STRATEGY FOR ONSITE SYSTEM DESIGN, SITE EVALUATION PROCEDURES, WASTEWATER CHARACTERISTICS, WASTEWATER MODIFICATION, ONSITE TREATMENT METHODS, DISPOSAL METHODS, APPURTENANCES, RESIDUALS DISPOSAL, AND MANAGEMENT OF ONSITE SYSTEMS. A NUMBER OF FIGURES AND TABLES ACCOMPANY THE CHAPTERS.

AVAILABILITY: UNITED STATES ENVIRONMENTAL AGENCY, WATER & WASTE MANAGEMENT, OWPO, WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW005586

PUBLICATION DATE: 80

TITLE: WEED CONTROL METHODS FOR PUBLIC HEALTH APPLICATIONS.

PERSONAL AUTHOR: GANGSTAD, EDWARD O.

DESCRIPTOR: AQUATIC VEGETATION; *DISEASES; *ECOLOGY; FISH; *PEST CONTROL; PUBLIC HEALTH; RESEARCH; *WEED CONTROL; WATER RESOURCES

DESCRIPTIVE NOTE: 301P. PRICE: $69.95

ABSTRACT: THIS VOLUME INCLUDES CONTROL MEASURES OF AQUATIC WEEDS WHICH ARE INSTRUMENTAL IN THE SPREAD OF WATER RELATED HUMAN DISEASES. THE BOOK IS DIVIDED INTO THREE MAIN SECTIONS; (1) AQUATIC PLANT SURVEY AND ASSESSMENT; (2) ECOSYSTEM STUDIES OF IMPOUNDED WATER; AND (3) RESEARCH AND DEVELOPEMENT STUDIES FOR THE USE OF HERBIVOROUS FISH IN WEED CONTROL.

AVAILABILITY: CRC PRESS, INC., 2000 N.W. 24TH STREET, BOCA RATON, FL 33431

IRIS ACCESSION NUMBER: EW005587

PUBLICATION DATE: 80

TITLE: WATER CHLORINATION: ENVIRONMENTAL IMPACT AND HEALTH EFFECTS-VOLUME 3.

PERSONAL AUTHOR: JOLLEY, ROBERT L., AND OTHERS

DESCRIPTOR: ANALYTICAL TECHNIQUES; AQUATIC SYSTEMS; CHEMICAL ANALYSIS; *CHLORINATION; *CHLORINE; *CONFERENCE REPORTS; DRINKING WATER; *DISINFECTION; ENVIRONMENTAL IMPACTS; *HEALTH EFFECTS; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WATER); PUBLIC HEALTH; RESEARCH REPORTS; *TEXTBOOKS; *WATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 1171P. PRICE: $37.50

ABSTRACT: THIS BOOK IS A COMPILATION OF 98 PAPERS ON THE VARIOUS ASPECTS OF CHLORINATION. SECTIONS INCLUDE: PERSPECTIVES, CHLORINATION OF 84493 MATERIALS AND TRIHALOMETHANE FORMATION, HALOGENAT90N 06 8 --CEN-8 ONTAINING ORGANIC AND INORGANIC SUBSTRATES, CHEMICAL TECHNIQUES, CHLORINE IN THE FOOD AND PAPER INDUSTRIES, COOLING WATERS, CHLORINATION PRODUCTS AND PREDICTIVE MODELS, AQUATIC TOXICITY, UPTAKE, BIOACCUMULATION, AND COMMUNITY EFFECTS, THE DISINFECTION PROCESS, DRINKING WATER TREATMENT, BIOLOGICAL TESTING OF SIMPLE AND COMPLEX MIXTURES, RISK ASSESMENT AND REGULATIONS, AND CONFERENCE SUMMARIES.

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS, P.O. BOX 1425, ANN ARBOR, MI 48106

IRIS ACCESSION NUMBER: EW005588

PUBLICATION DATE: AUG 80

TITLE: ENVIRONMENTAL BIOLOGY.

PERSONAL AUTHOR: BARRINGTON, E. J. W.

DESCRIPTOR: *BIOLOGICAL SCIENCES; *CELL BIOLOGY; ENVIRONMENT; *ENVIRONMENTAL BIOLOGY; ENERGY; ECOSYSTEMS; *HIGHER EDUCATION; *INSTRUCTIONAL MATERIALS; RESPIRATION; REPRODUCTION; *TEXTBOOKS

DESCRIPTIVE NOTE: 244P. PRICE: $17.95

ABSTRACT: THIS BOOK IS INTENDED AS A BRIEF INTRODUCTION TO CELL AND ORGANISM BIOLOGY. THE BASIC PRINCIPLES WHICH GOVERN THE RELATIONSHIPS OF LIVING ORGANISMS WITH EACH OTHER AND WITH THEIR PHYSICAL ENVIRONMENT ARE PRESENTED AND ILLUSTRATED. TOPICS COVERED INCLUDE: RESPIRATION, REPRODUCTION, NUTRITION, ENERGY FLOWS, SALTS AND WATER, TEMPERATURE BALANCE AND COMMUNICATION.

AVAILABILITY: JOHN WILEY & SONS, INC., ONE WILEY DRIVE, SOMERSET, NJ 08873

IRIS ACCESSION NUMBER: EW005589

PUBLICATION DATE: OCT 80

TITLE: SEWAGE-SLUDGE INCINERATION RAISES AIR POLLUTION CONCERNS.

PERSONAL AUTHOR: DEWLING, RICHARD T.

DESCRIPTOR: *AIR POLLUTION; COST EFFECTIVENESS; ENERGY CONSERVATION; *ENVIRONMENTAL IMPACT; EFFICIENCY; *HEAVY METALS; *INCINERATION; *POLLUTION CONTROL; *SEWAGE; *SLUDGE; *WASTE DISPOSAL; WATER POLLUTION

DESCRIPTIVE NOTE: 26-29843P.

ABSTRACT: RECENTLY SEWAGE-SLUDGE INCINERATION HAS BEEN INCREASING IN POPULARITY AS AN ALTERNATIVE MEANS OF WASTE DISPOSAL DUE TO ITS EFFICIENCY AND COST EFFECTIVENESS. HOWEVER, THERE ARE CONSIDERABLE ENVIRONMENTAL IMPACTS ASSOCIATED WITH INCINERATION. THE ASH, AS WELL AS ANY PARTICULATES CAPTURED BY THE AIR-POLLUTION-CONTROL DEVICES, MAY PRESENT A VERY SPECIAL DISPOSAL PROBLEM, SINCE MOST OF THE HEAVY METALS FOUND IN SLUDGE ARE CONCENTRATED IN THIS WASTE STREAM. IN ANY COMBUSTION SYSTEM, AIR EMISSIONS ARE A MAJOR CONCERN AND THEIR REGULATIONS MAY BE THE MOST DIFFICULT AND COSTLY TO SATISFY. SOLUTIONS EXIST TO MANY OF THESE AIR POLLUTION PROBLEMS, HOWEVER THEY ARE UNCONVENTIONAL AND NOT YET WIDELY USED.

AVAILABILITY: WATER & SEWAGE WORKS, V127 N10

IRIS ACCESSION NUMBER: EW005590

PUBLICATION DATE: OCT 80

TITLE: INCINERATION IN A WASTE-MANAGEMENT ALTERNATIVE.

PERSONAL AUTHOR: NIESSEN, WALTER R.

DESCRIPTOR: *AIR POLLUTION CONTROL; *ENVIRONMENTAL IMPACT; ENERGY CONSERVATION; HAZARDOUS WASTES; HEAVY METALS; *INCINERATION; *MANAGEMENT ALTERNATIVES; *POLLUTION CONTROL; *SLUDGE; *WASTE MANAGEMENT; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 30-31839P.

ABSTRACT: FLUID-BED BURNING OF SLUDGE IS BUT ONE OF SEVERAL RECENT IMPROVEMENTS THAT MAKE SLUDGE BURNING AN ATTRACTIVE DISPOSAL ALTERNATIVE. BUT THERE ARE DISADVANTAGES AS WELL AS ADVANTAGES ASSOCIATED WITH THE PROCESS. ENVIRONMENTAL PROBLEMS ARISE DUE TO THE MINERAL PARTICULATES, COMBUSTIBLE PARTICULATES, HEAVY METAL CONTAMINANTS, AND GASEOUS POLLUTION GENERATED DURING THE PROCESS. HOWEVER, AIR POLLUTION CONTROL TECHNIQUES CAN BE INSTITUTED AND THE RESIDUE DISPOSAL PROBLEMS SOLVED. THEREFORE, INCINERATION IS A TECHNICALLY ACCEPTABLE, SOMETIMES SUPERIOR METHOD OF PROCESSING WASTES.

AVAILABILITY: WATER & SEWAGE WORKS, V127 N10

IRIS ACCESSION NUMBER: EW005591

PUBLICATION DATE: OCT 80

TITLE: PLANNED PROCESSING BEATS BACK WATER-PLANT SLUDGE DISPOSAL PROBLEMS.

PERSONAL AUTHOR: WESTERHOFF, GARRET P.; CLINE, GARY C.

DESCRIPTOR: COSTS; OPERATIONS (WATER); *PLANNING; *PROCESSING; *SLUDGE DISPOSAL; *SOLID WASTES; SLUDGE TREATMENT; *WATER TREATMENT; *WASTEWATER TREATMENT; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 32-35858P.

ABSTRACT: TRADITIONALLY, THE DISPOSAL OF WATER-PLANT WASTES HAS BEEN BY DISCHARGE TO A NEARBY WATER COURSE. NOW MANY PLANTS CAN NO LONGER DISCHARGE UNTREATED SLUDGE DUE TO ENVIRONMENTAL STANDARDS AND REGULATION. THEREFORE, VARIOUS ALTERNATIVE DISPOSAL METHODS ARE UNDER CONSIDERATION. THESE INVOLVE SLUDGE COLLECTION AND THICKENING, AND THEN DEWATERING BY CODISPOSAL, NONMECHANICAL MEANS AND MECHANICAL MEANS. DEWATERING WITH NONMECHANICAL METHODS IS THE MOST ATTRACTIVE ALTERNATIVE DUE TO THE LOW COSTS ASSOCIATED WITH THE PROCESS.

AVAILABILITY: WATER & SEWAGE WORKS, V127 N10

IRIS ACCESSION NUMBER: EW005592

PUBLICATION DATE: OCT 80

TITLE: IMPROVED METHOD GENERATES MORE CHLORINE DIOXIDE.

PERSONAL AUTHOR: JORDAN, RICHARD W.; AND OTHERS

DESCRIPTOR: CHEMICAL REACTIONS; *CHLORINE DIOXIDE; *CHLORINE-CHLORITE PROCESS; *DISINFECTION; EFFICIENCY; *DRINKING WATER; *ODOR CONTROL; OXIDATION; *POTABLE WATER; QUALITY CONTROL; *TASTE CONTROL; *WATER TREATMENT

DESCRIPTIVE NOTE: 44-48P.

ABSTRACT: AN IMPROVED PROCESS GREATLY ENHANCES THE USE OF CHLORINE DIOXIDE AS AN ALTERNATIVE TO CHLORINE FOR DISINFECTION. IT ALSO PROVIDES MORE ECONOMY FOR EXTENSIVE USE IN TASTE AND ODOR CONTROL AND THE OXIDATION OF MANGANESE. THE PROPOSED METHOD IS THE HYDROCHLORINE ACID-SODIUM CHLORITE PROCESS. THE MAIN ADVANTAGE IS THAT IT GENERATES NO CHLORINE. HOWEVER, ONLY 80 PERCENT OF THE THEORETICAL QUANTITY OF CHLORINE DIOXIDE IS PRODUCED FROM THE SAME AMOUNT OF SODIUM CHLORITE AS WHEN CHLORINE IS USED.

AVAILABILITY: WATER & SEWAGE WORKS, V127 N10

IRIS ACCESSION NUMBER: EW005593

PUBLICATION DATE: OCT 80

TITLE: INDUSTRIAL TECHNOLOGY ADAPTED TO MUNICIPAL SLUDGE DRYING.

DESCRIPTOR: *ENERGY CONSERVATION; *INDUSTRY; *MUNICIPALITIES; *RESOURCE RECOVERY; *RECYCLING; *SLUDGE; *SLUDGE DRYING; SEWAGE TREATMENT; *TECHNOLOGY; *WASTEWATER TREATMENT; WATER QUALITY; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 51-53P.

ABSTRACT: DESCRIBES AN INNOVATIVE RESOURCE RECOVERY WASTEWATER TREATMENT PROJECT IN HARRISBURG, PENNSYLVANIA. THE FACILITY INCORPORATES AN ENERGY RECOVERY SYSTEM THAT WILL UPGRADE THE AREAS SEWAGE TREATMENT AND WATER QUALITY, HELP PROVIDE A SOLUTION TO THE CITY'S SOLID WASTE AND SLUDGE DISPOSAL PROBLEMS, AND GENERATE MORE THAN A MILLION DOLLARS PER YEAR THROUGH THE USE AND SALE OF STEAM AND RECYCLED METAL.

AVAILABILITY: PUBLIC WORKS, V111 N10

IRIS ACCESSION NUMBER: EW005594

PUBLICATION DATE: OCT 80

TITLE: ENERGY SAVING IN ACTIVATED SLUDGE TREATMENT.

PERSONAL AUTHOR: GUARINO, CARMEN F.; AND OTHERS

DESCRIPTOR: *ACTIVATED SLUDGE; AERATION; *ENERGY; *ENERGY CONSERVATION; *FACILITIES; MICROBIOLOGY; *OPERATIONS (WASTEWATER); *SLUDGE TREATMENT; SECONDARY TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 57-62 8 94P.

ABSTRACT: DESCRIPTION OF A NEW TREATMENT PROCESS, KNOWN AS "SURFACT", THAT HAS BEEN SHOWN TO BE A VIABLE MEANS OF UPGRADING EXISTING WASTEWATER TREATMENT FACILITIES. THE PROCESS INVOLVES COMBINING ACTIVATED SLUDGE WITH ROTATING BIOLOGICAL CONTACTORS. THE MAIN ADVANTAGE OF THE SYSTEM IS THE ABILITY TO REDUCE BIOCHEMICAL OXYGEN DEMAND AT LOW ENERGY COSTS. ESTIMATES INDICATE THAT ENERGY CONSUMPTION WILL BE REDUCED BY AT LEAST ONE-THIRD.

AVAILABILITY: PUBLIC WORKS, V111 N10

IRIS ACCESSION NUMBER: EW005595

PUBLICATION DATE: OCT 80

TITLE: ONSITE WASTEWATER TREATMENT FOR A RECREATION AREA.

PERSONAL AUTHOR: VIRARAGHAVEN, T.; AND OTHERS

DESCRIPTOR: *EFFLUENT; *FACILITIES; *ONSITE TREATMENT; *PARKS; *RECREATION AREAS; *RURAL AREAS; SEPTIC TANKS; TREATMENT ALTERNATIVES; *WASTEWATER TREATMENT; *WASTEWATER DISPOSAL; WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 63-64P.

ABSTRACT: FACED WITH AN EVER INCREASING NUMBER OF VISITORS, PARKS CANADA DECIDED THAT FACILITIES FOR CAVENDISH BEACH AT PRICE EDWARD ISLAND NATIONAL PARK WERE INADEQUATE. TO REMEDY THE SITUATION PLANS WERE MADE TO CONSTRUCT A 350 CAR PARKING LOT, A CHANGEHOUSE/CONCESSION BUILDING WITH RELATED WATER DISTRIBUTION AND WASTEWATER DISPOSAL SYSTEMS. SEVERAL ONSITE TREATMENT ALTERNATIVES WERE CONSIDERED FOR CAVENDISH BEACH INCLUDING: PACKAGE AND OTHER MECHANICAL TREATMENT PLANTS WITH SURFACE DISCHARGE OF EFFLUENT, TWO-CELL STABILIZATION POND WITH SURFACE DISCHARGE OF EFFLUENT, SPRAY IRRIGATION AND SEPTIC TANK AND TILE FIELD SYSTEMS (WHICH WAS THE PREFERRED ALTERNATIVE).

AVAILABILITY: PUBLIC WORKS, V111 N10

IRIS ACCESSION NUMBER: EW005602

PUBLICATION DATE: OCT 80

TITLE: FOREST PESTICIDES: AN OVERVIEW.

PERSONAL AUTHOR: JOSEPHSON, JULIAN

DESCRIPTOR: CHEMICALS; CHEMICAL USE STUDY; *FORESTRY; *FOREST MANAGEMENT; HAZARDOUS CHEMICALS; NONTARGET SPECIES; *PESTICIDES; PUBLIC HEALTH; PESTICIDE DRIFT; RISK ASSESSMENT; SPONTANEOUS ABORTIONS

DESCRIPTIVE NOTE: 1165-1168P.

ABSTRACT: FOREST PESTICIDES ONLY COMPRISE A SMALL FRACTION OF TOTAL PESTICIDE APPLICATION, BUT LARGE AREAS ARE COVERED. HUMAN AND NONTARGET SPECIES EXPOSURE, AS WELL AS CERTAIN CHEMICALS INVOLVED, ARE SUBJECTS OF CONCERN AND RATHER INTENSE DEBATE. THE CONTROVERSY "CENTERS AROUND WHETHER OR NOT IT IS SAFE TO APPLY 2.4-D, 2.4.-T AND SILVEX (2.4ST ESTER). CHEMICAL USE TESTS HAVE BEEN CARRIED OUT BY VARIOUS REGULATORY AGENCIES, BUT THE RESULTS ARE OFTEN CONFUSING AND CONFLICTING. THEREFORE, FUTHER SCIENTIFICALLY MANAGED RESEARCH HAS BEEN PLANNED, UNTIL THEN THE CONTROVERSY CONTINUES.

AVAILABILITY: ENVIRONMENTAL SCIENCE AND TECHNOLOGY, V14 N10

IRIS ACCESSION NUMBER: EW005603

PUBLICATION DATE: OCT 80

TITLE: FIRST RESPONSE PROCEDURES FOR HAZARDOUS MATERIALS.

PERSONAL AUTHOR: BERRY, ROBERT E.

DESCRIPTOR: *CHECKLISTS; *EMERGENCIES; *HAZARDOUS MATERIALS; *MANAGEMENT; *REGULATIONS; *SOLID WASTES; *SPILLS; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 37-41P.

ABSTRACT: THIS ARTICLE INDICATES A POSSIBLE APPROACH TO TAKE WHEN DEALING WITH THE POSSIBILITIES OF SPILLS OF HAZARDOUS MATERIALS. THE AUTHOR SUGGESTS THAT A CHECKLIST APPROACH SHOULD BE TAKEN. THIS WOULD ENTAIL A THOROUGH INVESTIGATION OF ALL MAJOR CHEMICAL SUBSTANCES THAT COULD BE INVOLVED IN AN EMERGENCY SITUATION. THIS CHECKLIST WOULD LEAD TO THE DEVELOPMENT OF A COMPREHENSIVE FILE THAT WOULD CONTAIN KEY INFORMATION FOR CAPSULE REPORTS TO BE GIVEN TO THE MEDIA EMERGENCY GROUPS AND APPROPRIATE REGULATORY AGENCIES. THIS INFORMATION WOULD THEREFORE INDICATE THE FIRST APPROXIMATE RESPONSE PROCEDURE TO AN ACCIDENT OF HAZARDOUS WASTE, AND HENCE PREVENT MISMANAGEMENT OF SPILLS.

AVAILABILITY: POLLUTION ENGINEERING, V12 N10

IRIS ACCESSION NUMBER: EW005604

PUBLICATION DATE: 80

TITLE: WASTE DISPOSAL EFFECTS ON GROUND WATER.

PERSONAL AUTHOR: MILLER, DAVID W.

DESCRIPTOR: AGRICULTURAL WASTES; *CONTAMINATION; FEDERAL LEGISLATION; *GROUND WATER; *INDUSTRIAL WASTES; INPOUNDMENTS; *LAND DISPOSAL; MUNICIPAL WASTE; MINE WASTES; SOLID WASTES; STANDARDS; WATER RESOURCES; WASTE TREATMENT; *WASTE DISPOSAL; *WATER POLLUTION; WATER QUALITY

DESCRIPTIVE NOTE: 512P. PRICE: $16.00

ABSTRACT: THIS BOOK IS A REPRODUCTION OF THE 1977 REPORT TO CONGRESS ON WASTE DISPOSAL PRACTICES AND THEIR EFFECTS ON GROUND WATER. IT DEALS WITH: (1) INDUSTRIAL, MINE, AGRICULTURAL AND MUNICIPAL WASTE TREATMENT AND DISPOSAL PRACTICES, (2) THE CONTAMINATION OF GROUNDWATER AND THE RAMIFICATIONS OF THE POLLUTION, AND (3) EXISTING FEDERAL, STATE AND LOCAL LEGISLATIVE PROTECTION MEASURES. THE REPORT CONCLUDES THAT A NATIONAL STRATEGY OF GROUNDWATER PROTECTION WILL REQUIRE A BETTER UNDERSTANDING OF THE ENVIRONMENTAL, LEGAL, TECHNICAL, AND ECONOMIC COMPLEXITIES OF DEALING WITH THE RESOURCE.

AVAILABILITY: WATER INFORMATION CENTER, 6800 JERICHO TURNPIKE, SYOSSET, NY 11791

IRIS ACCESSION NUMBER: EW005605

PUBLICATION DATE: 79

TITLE: WATER TREATMENT HANDBOOK, FIFTH EDITION.

DESCRIPTOR: CHEMICAL ANALYSIS; DRINKING WATER; EFFLUENTS; *FACILITIES; *HANDBOOKS; *INSTRUCTIONAL MATERIALS; LEGISLATION; NON-POTABLE WATER; *OPERATIONS (WATER); REGULATIONS; SLUDGE; *TEXTBOOKS; *WATER TREATMENT

DESCRIPTIVE NOTE: 1186P. PRICE: $69.50

ABSTRACT: VARIOUS TOPICS PERTAINING TO WATER TREATMENT ARE DISCUSSED IN THIS TEXT. SIX MAJOR PARTS SUB-DIVIDE THE BOOK. PART ONE (CHAPTERS 1-3): GENERAL ASPECTS OF WATER AND WATER TREATMENT, PART TWO (CHAPTERS 4-19): TREATMENT PLANT AND PROCESSES, PART THREE (CHAPTERS 20-25): TREATMENT METHODS ACCORDING TO THE NATURE AND THE FINAL USE OF THE WATER, PART FOUR (CHAPTERS 26-28): GENERAL INFORMATION, PART FIVE (CHAPTERS 29-33): FORMULAE, PART SIX (CHAPTERS 34): LEGISLATION. SPECIFIC CHAPTERS INCLUDE: WATER PHYSICS, CHEMISTRY, BIOLOGY, ACTION OF WATER ON MATERIALS, THEORY OF THE MAIN TREATMENT PROCESSES, PRELIMINARY TREATMENT, COAGULATION AND FLOCCULATION IN WATER TREATMENT, CHEMICAL PRECIPITATION, SETTLING AND FLOTATION, AEROBIC BIOLOGICAL PROCESSES, WATER FILTRATION, ION EXCHANGE, ADSORPTION AND ADSORBENTS, SEPARATION BY MEMBRANES, GAS-LIQUID EXCHANGE, CHEMICAL CORRECTION AND CONDITIONING OF WATER, OXIDATION AND DISINFECTION, NATURE, STABLIZATION, THICKENING AND CONDITIONING OF SLUDGE, SLUDGE DEWATERING, DRYING, AND INCINERATION, MEASUREMENT, MONITORING, CONTROL AND AUTOMATION, DRINKING WATER TREATMENT, SWIMMING POOL WATER TREATMENT, TREATMENT OF BOILER AND COOLING SYSTEM WATER, TREATMENT OF INDUSTRIAL PROCESS WATER, TREATMENT OF DOMESTIC SEWAGE, TREATMENT OF INDUSTRIAL EFFLUENTS, CHEMISTRY OF WATER AND REAGENTS, METHODS OF ANALYSIS, BIOLOGY, UNITS OF MEASUREMENT, MATHEMATICAL NOTES, HYDRAULICS, ELECTRICITY, HEAT, AND LEGISLATION.

AVAILABILITY: JOHN WILEY & SONS, INC., ONE WILEY DRIVE, SOMERSET, NJ 08873

INSTITUTION NAME: DEGREMONT COMPANY.

IRIS ACCESSION NUMBER: EW005606

PUBLICATION DATE: 78

TITLE: PUMPING STATIONS FOR WATER AND SEWAGE.

PERSONAL AUTHOR: BARTLETT, RONALD E.

DESCRIPTOR: ENGINEERING; *DESIGN; *FACILITIES; *INSTALLATION; *MAINTENANCE; OPERATION; *PUMPING STATIONS; *SEWAGE; *WATER SUPPLY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 130P. PRICE: $23.95

ABSTRACT: THIS BOOK SUMMARIZES PRESENT-DAY PRACTICE ON PUMPING STATION DESIGN, PARTICULARLY AS IT RELATES TO SEWAGE AND WATER SUPPLY. CHAPTERS ARE INCLUDED ON THE VARIOUS TYPES OF PUMPS, MOTORS AND SWITCHGEAR, TOGETHER WITH INFORMATION ON THE LAYOUT OF THE BUILDINGS AND THE DESIGN OF THE RISING MAINS. THE LATER CHAPTERS COVER SOME ASPECTS OF INSTALLATION, OPERATION AND MAINTENANCE.

AVAILABILITY: JOHN WILEY & SONS, INC., ONE WILEY DRIVE, SOMERSET, NJ 08873

IRIS ACCESSION NUMBER: EW005607

PUBLICATION DATE: OCT 80

TITLE: SEWER WORKERS DON'T FACE HEALTH RISK.

DESCRIPTOR: *DISEASE CONTROL; *HEALTH RISKS; INFECTIOUS DISEASES; OCCUPATIONAL HEALTH; *OCCUPATIONAL SAFETY; RESEARCH; *SEWAGE WORKERS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 9P.

ABSTRACT: THIS ARTICLE CITES THREE STUDIES ON HEALTH RISKS TO SEWER WORKERS INCLUDED IN A NATIONAL ASSOCIATION OF SEWER SERVICE COMPANIES MEDICAL ADVISORY REPORT. NONE OF THE THREE REPORTS FOUND AN ADDED RISK OF INFECTIOUS DISEASES AMONG WORKERS EXPOSED TO WASTEWATER. THE ASSOCIATION ALSO STATES IT DOES NOT APPEAR WARRANTED TO RECOMMEND ANY INOCULATIONS FOR SEWER WORKERS OVER AND ABOVE THOSE CURRENTLY ADVISED FOR ADULTS BY THE CENTER FOR DISEASE CONTROL.

AVAILABILITY: WATER AND WASTES ENGINEERING, V17 N10

IRIS ACCESSION NUMBER: EW005608

PUBLICATION DATE: OCT 80

TITLE: FLOW EQUALIZE ALL INFLUENT.

PERSONAL AUTHOR: UPDIKE, JAY

DESCRIPTOR: COSTS; *DESIGN; EQUIPMENT; *FACILITIES; *FLOW EQUALIZATION; INFILTRATION; *INFLOW; OPERATIONS (WASTEWATER); *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 20-23P.

ABSTRACT: IN-LINE FLOW EQUALIZATION BASINS INSTALLED RECENTLY AT THE MUSKOGEE, OKLAHOMA, WASTERWATER TREATMENT PLANT, SHOULD EQUALIZE WET WEATHER FLOWS TO WITHIN EXISTING PLANT CAPACITY. BY PASSING DRY AND WET WEATHER FLOW THROUGH THE TWO BASINS AT A PRE-SET RATE, THE PLANT REAPS THE ADDED BENEFITS OF CONSTANT INFLUENT RATE, EMERGENCY STORAGE CAPACITY, AND GRIT REMOVAL. IN-LINE FLOW EQUALIZATION, UNDER THE PROPER CIRCUMSTANCES, PROVIDES BENEFITS WHICH SIDE STREAM FLOW EQUALIZATION DOES NOT.

AVAILABILITY: WATER AND WASTES ENGINEERING, V17 N10

IRIS ACCESSION NUMBER: EW005609

PUBLICATION DATE: OCT 80

TITLE: CHOOSE THE RIGHT FLOWMETER.

PERSONAL AUTHOR: BROWN, A. E.

DESCRIPTOR: EQUIPMENT; *EQUIPMENT EVALUATION; *FLOWMETERS; *WATER MEASUREMENT; *WATER METERS

DESCRIPTIVE NOTE: 24-27P.

ABSTRACT: THIS ARTICLE PRESENTS A REVIEW OF METERING TECHNIQUES, ESPECIALLY ULTRASONIC, AND ADVICE ON PICKING A METER TO SUIT YOUR NEEDS. ALSO SUGGESTED IS THE NEED TO ADDRESS LIQUID FLOW MEASUREMENT APPLICATIONS KNOWLEDGEABLY, AND TO SEEK DEMONSTRATED EXPERTISE FROM THE POTENTIAL SUPPLIERS OF FLOWMETER EQUIPMENT.

AVAILABILITY: WATER AND WASTES ENGINEERING, V17 N10

IRIS ACCESSION NUMBER: EW005610

PUBLICATION DATE: OCT 80

TITLE: HOW CAN CE'S IMPROVE O&M?

PERSONAL AUTHOR: RALSTON, DOUG; CAICEDO, EDUARDO

DESCRIPTOR: COMMUNICATIONS; *CONSULTANTS; ENGINEERING; *ENGINEERS; MAINTENANCE; *MANAGEMENT; *MANAGEMENT SYSTEMS; MANUALS; *OPERATIONS; PERSONNEL; RECOMMENDATIONS; *TRAINING

DESCRIPTIVE NOTE: 30-31,35P.

ABSTRACT: FOR CONSULTING ENGINEERS, THE BLUEPRINT FOR BUILDING BETTER OPERATIONS AND MAINTENANCE IS SIMPLE: CONSTRUCT NEW BRIDGES OF COOPERATION BETWEEN ENGINEER, CLIENT, OPERATOR, CONTRACTOR, AND REGULATORY AGENCY. TEAR DOWN THE OLD PATTERNS OF BLAME-LAYING AND EXCUSEMAKING, AND FOLLOW A SERIES OF STEPS RANGING FROM PREPARING USABLE O AND M MANUALS TO INVOLVING THE OPERATOR IN THE O AND M TEAM.

AVAILABILITY: WATER AND WASTES ENGINEERING, V17 N10

IRIS ACCESSION NUMBER: EW005611

PUBLICATION DATE: OCT 80

TITLE: ANTICIPATE PIPE FREEZE-UPS.

PERSONAL AUTHOR: BLOCK, BILL

DESCRIPTOR: *EQUIPMENT EVALUATION; *FREEZE-UPS; *IDAHO; *MAINTENANCE (PREVENTATIVE); *PIPES (WATER); *TEMPERATURE PROBES; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: 34-35P.

ABSTRACT: THIS ARTICLE DISCUSSES THE EFFORTS BY THE CITY OF KETCHUM, IDAHO TO ANTICIPATE AND PREVENT WATER PIPE FREEZE-UPS. THE FROST PENETRATION DETECTION SYSTEM CONSISTS OF A TEMPERATURE PROBE IN A ONE INCH PVC CONDUIT NEAR THE PIPE LINE. EIGHT PROBES WERE INSTALLED IN THE DEAD SPOTS OF THE WATER SYSTEM. THE NEW SYSTEM HAS OPERATED ONE WINTER WITHOUT ANY PIPE FREEZE-UPS.

AVAILABILITY: WATER AND WASTES ENGINEERING, V17 N10

IRIS ACCESSION NUMBER: EW005612

PUBLICATION DATE: OCT 80

TITLE: NEW DAY DAWNS FOR CALIFORNIA WATER.

PERSONAL AUTHOR: MADDOCK, THOMAS S.; HARDAN, DAVID L.

DESCRIPTOR: CALIFORNIA; *COMPUTER APPLICATIONS; *DESIGN; EQUIPMENT; *FACILITIES; MANAGEMENT; *OPERATIONS (WATER); *WATER DISTRIBUTION; *WATER TREATMENT

DESCRIPTIVE NOTE: 39-42P.

ABSTRACT: THIS ARTICLE EXAMINES CALIFORNIA'S QUARTZ HILL WATER TREATMENT PLANT, CONSIDERED THE FLAGSHIP OF THE DOMESTIC AND AGRICULTURAL WATER NETWORK (DAWN) DISTRIBUTION SYSTEM. QUARTZ HILL'S COMPUTER SYSTEM WILL OVERSEE THE ENTIRE $71 MILLION DAWN WATER DISTRIBUTION SYSTEM. THE PLANT WILL ALSO PROVIDE FULL TREATMENT FOR 14 MGD OF RAW WATER AND WILL EVENTUALLY EXPAND TO TREAT 56 MGD.

AVAILABILITY: WATER AND WASTE ENGINEERING, V17 N10

IRIS ACCESSION NUMBER: EW005613

PUBLICATION DATE: OCT 80

TITLE: FIGURE IT OUT!

PERSONAL AUTHOR: CAPLAN, F.

DESCRIPTOR: *CALCULATIONS; ENGINEERING; *EQUATIONS; *MATHEMATICAL APPLICATIONS; *MATHEMATICAL MODELS; MEASUREMENTS; *NOMOGRAPHS; *PIPES; *PUMPS; SCREENS

DESCRIPTIVE NOTE: 44-47P.

ABSTRACT: EXAMPLES, EQUATIONS AND ILLUSTRATIONS ARE INCLUDED IN THESE FIVE NOMOGRAPHS ON SCREEN, PIPE, PUMP, AND CHANNEL PROBLEMS. WITH THESE DETAILED NOMOGRAPHS ENGINEERS CAN CALCULATE SCREEN OPEN AREAS, PIPELINE FREEZING TEMPERATURES, VACUUM PUMP SIZES, AND MORE.

AVAILABILITY: WATER AND WASTE ENGINEERING, V17 N10

IRIS ACCESSION NUMBER: EW005614

PUBLICATION DATE: OCT 80

TITLE: DON'T UNDER ESTIMATE URBAN RUNOFF PROBLEMS.

PERSONAL AUTHOR: FIELD, RICHARD; TURKELTAUB, ROBERT

DESCRIPTOR: *CASE STUDIES; COLIFORMS; COST EFFECTIVENESS; DISSOLVED OXYGEN; HEAVY METALS; PESTICIDES; *POLLUTION CONTROL; *RESEARCH; *SURFACE RUNOFF; *STORMWATER; *SEWAGE; TOXIC SUBSTANCES; *URBAN ENVIRONMENT; *WATER POLLUTION; *WATER QUALITY; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 48-52P.

ABSTRACT: THIS ARTICLE STATES THAT URBAN STORMWATER AND COMBINED SEWER OVERFLOW (CSO) HAVE BEEN UNDER-RESEARCHED AND OFTEN OVERLOOKED CAUSES OF WATER POLLUTION UNTIL RECENTLY. THIS ARTICLE CONCLUDES THAT URBAN RUNOFF IS A MAJOR SOURCE OF TOXIC POLLUTANTS, ESPECIALLY HEAVY METALS AND PETROLEUM HYDROCARBONS. DISCUSSED ARE DISSOLVED OXYGEN IMPACTS, COLIFORM LEVELS, TOXICITY PROBLEMS, AND FUTURE RESEARCH NEEDS.

AVAILABILITY: WATER AND WASTES ENGINEERING, V17 N10

IRIS ACCESSION NUMBER: EW005615

PUBLICATION DATE: OCT 80

TITLE: DESIGNING EQUITABLE WATER RATES: WHAT MANAGERS NEED TO KNOW.

PERSONAL AUTHOR: IDE, WILLIAM J.

DESCRIPTOR: COSTS; DESIGN; *ECONOMIC FACTORS; *EVALUATION; MANAGEMENT; *PUBLIC RELATIONS; *RATE STRUCTURES; REVENUE REQUIREMENTS; *WATER SUPPLY; *WATER RATES; *WATER UTILITIES

DESCRIPTIVE NOTE: 564-569P.

ABSTRACT: AS A RESULT OF INCREASED CUSTOMER AWARENESS OF THE LEVEL OF CHARGES FOR UTILITY SERVICES, THE WATER INDUSTRY, LIKE THE ELECTRIC, GAS, AND TELEPHONE INDUSTRIES, IS NOW BEING CALLED UPON TO DEAL WITH A NUMBER OF SOCIAL AND ECONOMIC PROBLEMS. IT IS IMPERATIVE THAT WATER UTILITY MANAGEMENT UNDERSTAND THE FUNDAMENTAL PRINCIPLES INVOLVED IN DETERMINING WATER SYSTEM REVENUE REQUIREMENTS AND DESIGNING EQUITABLE WATER RATES. SINCE FUTURE WATER RATES WILL NOT ONLY BE HIGHER BUT SIGNIFICANTLY SO, UTILITY MANAGERS MUST BE ABLE TO PERFORM OR SUPERVISE THE IN-DEPTH STUDIES AND ANALYSES NEEDED FOR FORMULATION RECOMMENDATIONS AS TO THE EXTENT AND SHAPE OF THE RATE CHANGES TO BE BROUGHT ABOUT.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V72 N10

IRIS ACCESSION NUMBER: EW005616

PUBLICATION DATE: OCT 80

TITLE: DRINKING WATER CHLORINATION: A PRACTICE UNRELATED TO CANCER MORTALITY.

PERSONAL AUTHOR: TUTHILL, ROBERT W.; MOORE, GARY S.

DESCRIPTOR: *CANCER; *CHLORINATION; *DISINFECTION; *DRINKING WATER; *HEALTH EFFECTS; HEALTH RISKS; MASSACHUSETTS; *RESEARCH; TECHNOLOGY; TRIHALOMETHANE; *WATER QUALITY; *WATER SUPPLY

DESCRIPTIVE NOTE: 570-573P.

ABSTRACT: THE PRACTICE OF CHLORINATION SHOULD NOT BE PHASED OUT IN PREFERENCE TO OTHER METHODS OF DISINFECTION UNTIL THERE IS STRONGER EPIDEMIOLOGICAL AND CLINICAL EVIDENCE TO SUPPORT THE CHARGE THAT IT PRODUCES SERIOUS HEALTH RISKS, AND UNTIL THE POTENTIAL HEALTH EFFECTS OF SUBSTITUTE DISINFECTANTS ARE CAREFULLY EXPLORED. ESTIMATES OF EXPOSURE TO CARCINOGENIC SUBSTANCES FORMED THROUGH CHLORINATION, MADE IN STUDIES THAT DID NOT CONTROL FOR SOCIOECONOMIC VARIABLES, MAY HAVE LED TO SPURIOUS ASSOCIATIONS OF CHLORINATION OF DRINKING WATER WITH CANCER.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V72 N10

IRIS ACCESSION NUMBER: EW005617

PUBLICATION DATE: OCT 80

TITLE: THE EFFECTS OF PERMANANATE PRETREATMENT ON TRIHALOMETHANE FORMATION IN DRINKING WATER.

PERSONAL AUTHOR: SINGER, PHILLIP C.; AND OTHERS

DESCRIPTOR: CHEMICAL ANALYSIS; CHLOROFORM; *DRINKING WATER; DISINFECTION; LABORATORY PROCEDURES; NORTH CAROLINA; ODOR; *PERMANGANATE; *PRETREATMENT; RESEARCH; TASTE; *TRIHALOMETHANE; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 573-578P.

ABSTRACT: BESIDES SATISFYING CONVENTIONAL PRETREATMENT FOR OXIDATION OF IRON AND MANGANESE AND DESTRUCTION OF TASTE AND ODOR CAUSING SUBSTANCES, PERMANGANATE HAS THE POTENTIAL TO OXIDIZE HUMIC AND OTHER ORGANIC CONTAMINANTS IN WATER THAT SERVE AS PRECURSORS OF TRIHALOMETHANES. THE RESULTANT MANGANESE DIOXIDE MAY ALSO ADSORB THESE PRECURSORS, THEREBY

EFFECTING THEIR REMOVAL DURING SEDIMENTATION AND FILTRATION.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V72 N10

IRIS ACCESSION NUMBER: EW005618

PUBLICATION DATE: OCT 80

TITLE: AN EMPIRICAL KINETIC MODEL OF TRIHALOMETHANE FORMATION: APPLICATIONS TO MEET THE PROPOSED THM STANDARD.

PERSONAL AUTHOR: KAVANAUGH, MICHAEL C.; AND OTHERS

DESCRIPTOR: ANALYTICAL TECHNIQUES; CHLORINATION; *DRINKING WATER; EFFLICENTS; KINETIC MODEL; *MATHEMATICAL MODEL; PREDICTION; *RESEARCH; STANDARDS; *TRIHALOMETHANE; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 578-582P.

ABSTRACT: EVEN THOUGH IT IS STILL IN THE DEVELOPMENTAL STAGE, A TWO-PARAMETER KINETIC MODEL OF TRIHALOMETHANE FORMATION CAN BE USEFUL FOR PREDICTING THM FORMATION IN THE DISTRIBUTION SYSTEM FOLLOWING POSTCHLORINATION BY PROVIDING AN ANALYTICAL METHOD FOR ESTIMATING THE ALLOWABLE EFFLUENT TOC LEVELS THAT MUST BE ACHIEVED TO ENSURE COMPLIANCE WITH THE 100-MG/L THM STANDARD. PARAMETERS CAN BE ESTIMATED FROM BATCH CHLORINATION EXPERIMENTS. FOR BATCH CHLORINATION OF SEVERAL HUMIC ACIDS, THE MODEL ADEQUATELY FITS THM FORMATION RESULTS WITH REACTION TIMES GREATER THAN 100 MIN. THE MODEL UNDERESTIMATES THM FORMATION IN THE INITIAL PERIOD OF THE REACTION, HOWEVER.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V72 N10

IRIS ACCESSION NUMBER: EW005619

PUBLICATION DATE: 76

TITLE: HOW TO REVIEW AND EVALUATE EMPLOYEE PERFORMANCE.

DESCRIPTOR: CASE STUDIES; *EMPLOYEE RELATIONS; EMPLOYER EMPLOYEE RELATIONSHIPS; *EVALUATION; EVALUATION METHODS; *GUIDES; *INSTRUCTIONAL MATERIALS; JOB ANALYSIS; *MANAGEMENT; *PERFORMANCE REVIEW; *PERSONNEL

DESCRIPTIVE NOTE: 210P. PRICE: $59.50

ABSTRACT: THIS MANUAL OUTLINES ONE PROCESS OF EMPLOYEE PERFORMANCE REVIEW AND ANALYSIS, PROVIDES A SET OF WORKING TOOLS TO MANAGE SUCH A PROCESS. SECTIONS INCLUDE: ISSUES ON WORTHWHILE WORK, OPPORTUNITIES, PROBLEMS, AND CHALLENGES, ASSESSING NEED FOR PERFORMANCE ANALYSIS AND REVIEW, OVERVIEW OF A REVIEW SYSTEM, DEFINING THE JOB AND ITS REQUIREMENTS, INFORMAL PROGRESS REVIEWS, PREPARING FOR THE ANNUAL REVIEW, CONDUCTING THE INTERVIEW, PARTS A AND B, FORWARD PLANNING, PROBLEM OF PROMOTABILITY, APPLYING THE PRINCIPLES, AND APPLICATIONS AND CASE STUDIES.

AVAILABILITY: DARTNELL, 4660 RAVENSWOOD AVENUE, CHICAGO, IL 60640

INSTITUTION NAME: UNIVERSAL TRAINING SYSTEMS COMPANY.

IRIS ACCESSION NUMBER: EW005620

PUBLICATION DATE: 79

TITLE: OPTIONS FOR COMMUNITY RESPONSE TO THE SAFE DRINKING WATER ACT.

DESCRIPTOR: ADMINISTRATION; *COMMUNITY ACTION; *DRINKING WATER; ENVIRONMENTAL PROTECTION AGENCY; ECONOMICS; ENGINEERING; *FEDERAL LEGISLATION; LEGAL IMPLICATIONS; PUBLIC HEALTH; POLICY RESEARCH; *SAFE DRINKING WATER ACT; *WATER TREATMENT; *WATER SUPPLY; *WATER RESOURCES; *WATER QUALITY

DESCRIPTIVE NOTE: 116P. PRICE: $4.00

ABSTRACT: THIS REPORT IS THE OUTGROWTH OF A POLICY RESEARCH PROJECT CONDUCTED DURING THE 1977-1978 ACADEMIC YEAR. THE STUDY, FUNDED IN PART BY THE ENVIRONMENTAL PROTECTION AGENCY AND THE FORD FOUNDATION, EXAMINED ISSUES OF COMMUNITY RESPONSE TO IMPLEMENTATION OF THE SAFE DRINKING WATER ACT. STUDENTS AND FACULTY PREPARED BRIEFING PAPERS WHICH PROVIDE OPTIONS TO COPE WITH THE LEGAL, ADMINISTRATIVE, ECONOMIC, AND ENGINEERING IMPLICATIONS OF THE ACT.

AVAILABILITY: OFFICE OF PUBLICATIONS, LYNDON B JOHNSON SCHOOL OF PUBLIC AFFAIRS, THE UNIVERSITY OF TEXAS AT AUSTIN, DRAWER Y, UNIVERSITY STATION, AUSTIN, TX 78712

IRIS ACCESSION NUMBER: EW005621

PUBLICATION DATE: APR 78

TITLE: IMPACT OF THE FEDERAL SAFE DRINKING WATER ACT ON TEXAS.

DESCRIPTOR: *DRINKING WATER; ENVIRONMENTAL PROTECTION AGENCY; *FEDERAL LEGISLATION; INTERDISCIPLENARY RESEARCH; POLICY RESEARCH; PUBLIC HEALTH; *SAFE DRINKING WATER ACT; STATE AGENCIES; *TEXAS; *WATER TREATMENT; *WATER SUPPLY; *WATER RESOURCES; WATER POLICY

DESCRIPTIVE NOTE: 189P. PRICE: $4.00

ABSTRACT: THIS REPORT DESCRIBES THE IMPLICATIONS OF THE FEDERAL SAFE DRINKING WATER ACT (P.L. 93-523) FOR STATE AND LOCAL AGENCIES. IT WAS PRODUCED BY A POLICY RESEARCH PROJECT UNDERTAKEN AT THE LYNDON B JOHNSON SCHOOL IN THE ACADEMIC YEAR 1976-1977. THE STUDY, FUNDED BY THE TEXAS DEPARTMENT OF HEALTH, MAKES CONCRETE POLICY RECOMMENDATIONS TO THE ENVIRONMENTAL PROTECTION AGENCY ON SUCH ISSUES AS FEDERAL FINANCING AND RESPONSIBILITY, STATE FINANCING FOR PRIVATE SYSTEMS, MONITORING OF SMALL SYSTEMS, PUBLIC INFORMATION REGULATIONS, AND THE GRANTING OF VARIANCES AND EXEMPTIONS.

AVAILABILITY: LYNDON B JOHNSON SCHOOL OF PUBLIC AFFAIRS, OFFICE OF PUBLICATIONS, DRAWER Y, UNIVERSITY STATION, THE UNIVERSITY OF TEXAS AT AUSTIN, AUSTIN, TX 78712

IRIS ACCESSION NUMBER: EW005622

PUBLICATION DATE: APR 80

TITLE: STATE OF THE STATES: WATER RESOURCES PLANNING AND MANAGEMENT.

DESCRIPTOR: *FEDERAL PROGRAMS; LEGISLATION; *MANAGEMENT; *PLANNING; *POLICY; PROBLEM SOLVING; REGULATIONS; RIVERS; STANDARDS; *STATE OF THE ART REVIEWS; UNITED STATES; WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 150P. PRICE: FREE OF CHARGE

ABSTRACT: THIS STUDY BY THE WATER RESOURCES COUNCIL HAS BEEN CONDUCTED TO PROVIDE ADDITIONAL INSIGHT INTO VARIOUS ASPECTS OF STATE WATER RESOURCES LEGISLATION AND ADMINISTRATIVE REGULATIONS AND TO UPDATE EXISTING DATA ON THOSE WATER RESOURCE PROBLEMS THAT ARE OF CONCERN TO STATE AND REGIONAL WATER RESOURCE AGENCIES. RELIABLE CURRENT DATA ON STATES WATER RESOURCES PROBLEMS, ACTIVITIES, AND INITIATIVES ARE PARTICULARLY USEFUL FOR EFFECTIVE IMPLEMENTATION OF THE COUNCILS TITLE III STATE GRANT PROGRAM. THE DATA CAN ALSO SERVE AS A GUIDE IN THE FORMULATION OF WATER RESOURCES POLICY AND PROGRAM RESPONSES BY FEDERAL, REGIONAL, STATE, AND LOCAL GOVERNMENTS. IN ADDITION, THE DATA CAN BE USED IN MAKING COMPARATIVE ASSESSMENTS AND HELPING TO GAUGE POLICY OPTIONS.

AVAILABILITY: U.S. WATER RESOURCES COUNCIL, 2120 L STREET, N.W., WASHINGTON, D.C. 20037, TELEPHONE: 202-254-8290

IRIS ACCESSION NUMBER: EW005623

PUBLICATION DATE: 79

TITLE: DIRECTORY OF SPECIAL LIBRARIES AND INFORMATION CENTERS, VOLUME 1.

PERSONAL AUTHOR: YOUNG, MARGARET L.; YOUNG, HAROLD C.

DESCRIPTOR: *DIRECTORIES; DATA BASES; *INFORMATION CENTERS; *LIBRARIES; *SPECIAL LIBRARIES

DESCRIPTIVE NOTE: 1279P. PRICE: $110.00

ABSTRACT: THIS DIRECTORY LISTS ALL SPECIAL LIBRARIES AND INFORMATION CENTERS IN THE UNITED STATES AND CANADA. SPECIAL LIBRARIES ARE LIBRARIES USUALLY BUILT AROUND A SPECIAL COLLECTION LIMITED BY SUBJECT OR FORM IN ACCORDANCE WITH THE INTERESTS OF ITS USERS. THE DIRECTORY ALSO CONTAINS NETWORKS AND CONSORTIA AND PATENT DEPOSITORY LIBRARIES.

AVAILABILITY: GALE RESEARCH COMPANY, BOOK TOWER, DETROIT, MI 48226

IRIS ACCESSION NUMBER: EW005624

PUBLICATION DATE: 79

TITLE: DIRECTORY OF SPECIAL LIBRARIES AND INFORMATION CENTERS, VOLUME 2, GEOGRAPHIC AND PERSONNEL INDEXES.

PERSONAL AUTHOR: YOUNG, MARGARET L.; YOUNG, HAROLD C.

DESCRIPTOR: *DIRECTORY; DATA BASES; *INFORMATION CENTERS; INFORMATION SPECIALISTS; LIBRARIES; SPECIAL LIBRARIES

DESCRIPTIVE NOTE: 715P. PRICE: $86.00

ABSTRACT: THIS DIRECTORY IS ARRANGED IN TWO SECTIONS, A GEOGRAPHIC INDEX AND A PERSONNEL INDEX. THE VOLUME CONSISTS ESSENTIALLY OF RECLASSIFICATIONS OF THE MATERIAL WHICH IS ARRANGED IN VOLUME I, "DIRECTORY OF SPECIAL LIBRARIES AND INFORMATION CENTERS IN THE UNITED STATES AND CANADA". THEREFORE, THIS VOLUME MAKES IT POSSIBLE, TO FIND LIBRARIES ACCORDING TO THEIR GEOGRAPHIC LOCATIONS, TO DETERMINE WHICH AND/OR HOW MANY LIBRARIES ARE LOCATED IN A SPECIFIC CITY, AND TO FIND THE ADDRESS AND LIBRARY OF A LIBRARIAN WHEN ONLY HER/HIS NAME IS KNOWN.

AVAILABILITY: GALE RESEARCH COMPANY, BOOK TOWER, DETROIT, MI 48226

IRIS ACCESSION NUMBER: EW005625

PUBLICATION DATE: 79

TITLE: BOOK PUBLISHERS DIRECTORY.

PERSONAL AUTHOR: BREWER, ANNIE M.; GEISER, ELIZABETH A.

DESCRIPTOR: *BOOK PUBLISHERS; *DIRECTORIES; *PUBLISHERS; *REFERENCE MATERIALS

DESCRIPTIVE NOTE: 668P. PRICE: $110.00

ABSTRACT: THE SECOND EDITION OF BOOK PUBLISHERS DIRECTORY, A GUIDE TO NEW AND ESTABLISHED, PRIVATE AND SPECIAL INTEREST, AVENT-GARDE AND ALTERNATIVE, ORGANIZATION AND ASSOCIATION, GOVERNMENT AND INSTITUTION PRESSES CUMULATES THE ENTRIES FROM THE FOUR QUARTER LIES OF THE FIRST EDITION (1977-1978) AND HAS ADDED MORE THAN 800 NEW ENTRIES. THIS REFERENCE TOOL PROVIDES LIBRARIANS AND BOOKSELLERS WITH A CONVENIENT, UP-TO-DATE SOURCE OF INFORMATION ON MORE THAN 3,400 PUBLISHING HOUSES. THE VOLUME IS ARRANGED UNDER THREE SECTIONS, THE PUBLISHERS INDEX, THE GEOGRAPHIC INDEX AND THE SUBJECT INDEX.

AVAILABILITY: GALE RESEARCH COMPANY, BOOK TOWER, DETROIT, MI 48226

IRIS ACCESSION NUMBER: EW005626

PUBLICATION DATE: OCT 80

TITLE: WHY CONTRACT OUT WASTEWATER TREATMENT?

DESCRIPTOR: *CONTRACTS; COST EFFECTIVENESS; JOB TRAINING; *MANAGEMENT; *MANPOWER NEEDS; *OPERATIONS (WASTEWATER); *PERSONNEL; *PLANT OPERATIONS; TRAINING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 16-17P.

ABSTRACT: OVER THE PAST THREE YEARS, THE EPA HAS SPONSORED TWO STUDIES EXAMINING WHY PUBLICLY OWNED TREATMENT WORKS HAVE FAILED TO MEET THEIR WATER QUALITY OBJECTIVES. MOST PROBLEMS POINT TO POOR QUALIFICATION AND TRAINING OF PLANT OPERATIONS PERSONNEL. THIS ARTICLE STATES THAT WHERE SUCH PROBLEMS OCCUR, CONTRACT OPERATIONS SHOULD BE CONSIDERED A VIABLE SOLUTION. OPTIONS AVAILABLE UNDER CONTRACT OPERATIONS ARE EXAMINED FOR: SUPERVISION, FULL STAFFING, FULL SERVICE CONTRACT, CONTRACT TERM, METHOD OF PAYMENT, PERFORMANCE GUARANTEE, EQUIPMENT REPLACEMENT AND MAINTENANCE, MUNICIPAL RESPONSIBILITIES, TERMINATION CLAUSES, AND LIABILITY.

AVAILABILITY: AMERICAN CITY 8 COUNTY, V95 N10

IRIS ACCESSION NUMBER: EW005627

PUBLICATION DATE: OCT 80

TITLE: AUTOMATIC SEWAGE SAMPLERS: WHAT TO LOOK FOR WHEN BUYING.

PERSONAL AUTHOR: SHELLY, PHILLIP E., PH.D.

DESCRIPTOR: *AUTOMATIC SAMPLERS; *EQUIPMENT; *EQUIPMENT EVALUATION; *EQUIPMENT SELECTION; GUIDES; MANUFACTURERS; *PERFORMANCE CRITERIA; *SAMPLING; *SEWAGE; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 35-38P.

ABSTRACT: THIS ARTICLE DISCUSSES TWELVE SIGNIFICANT PERFORMANCE FACTORS AND OTHER QUALITATIVE DISTINCTIONS WHICH SHOULD BE CONSIDERED BEFORE CHOOSING AUTOMATIC LIQUID SAMPLING EQUIPMENT. TO AID IN EQUIPMENT SELECTION THE AUTHOR CLASSIFIES THE TYPES OF SAMPLES DESIRED INTO THE FOLLOWING CATAGORIES: DISCRETE SAMPLES, SIMPLE COMPOSITE SAMPLE, FLOW PROPORTIONAL COMPOSITE SAMPLE, SEQUENTIAL COMPOSITE SAMPLE, AND CONTINUOUS COMPOSITE SAMPLE. A DETAILED AUTOMATIC SAMPLER CHARACTERISTIC SUMMARY AND A LIST OF U.S. AUTOMATIC LIQUID SAMPLER MANUFACTURERS ARE PRESENTED.

AVAILABILITY: AMERICAN CITY 8 COUNTY, V95 N10

IRIS ACCESSION NUMBER: EW005628

PUBLICATION DATE: OCT 80

TITLE: WATER QUALITY CRITERIA AND STANDARDS DEVELOPMENT: TRYING TO MAKE A DIFFICULT APPROACH MANAGEABLE.

PERSONAL AUTHOR: FELICIANO, D. V.

DESCRIPTOR: *CLEAN WATER ACT; EFFLUENTS; *ENVIRONMENTAL PROTECTION AGENCY; FEDERAL LEGISLATION; *LEGISLATION; *PLANNING; *STANDARDS; TOXIC STANDARDS; *WASTEWATER TREATMENT; *WATER QUALITY; WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 2418-2424,2600P.

ABSTRACT: THE ROLES OF TOXICS AND ADVANCED WASTE TREATMENT IN WATER POLLUTION CONTROL ARE DEPENDENT UPON WATER QUALITY CRITERIA AND WATER QUALITY STANDARDS. THIS ARTICLE EXAMINES THE DEVELOPMENT OF THE CRITERIA AND STANDARD SETTING PROCESS OVER THE YEARS, THE CHANGES THAT HAVE EVOLVED WITH IMPROVED TECHNICAL KNOWLEDGE AND PRACTICAL UNDERSTANDING, AND THE DIRECTION IN WHICH THE PROGRAM MIGHT PROCEED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V52 N10

IRIS ACCESSION NUMBER: EW005629

PUBLICATION DATE: OCT 80

TITLE: ENERGY CONSERVATION AND ALTERNATIVE ENERGY SOURCES IN WASTEWATER TREATMENT.

PERSONAL AUTHOR: RUSHBROOK, EDWARD L., JR.; WILKE, DOUGLAS A.

DESCRIPTOR: *ALTERNATIVE ENERGY SOURCES; *CLEAN WATER ACT; DESIGN; *ENERGY; *ENERGY CONSERVATION; *FACILITIES; FEDERAL LEGISLATION; MUNICIPAL WASTEWATER; PLANNING; *TECHNOLOGY; *WASTEWATER TREATMENT; WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 2477-2483P.

ABSTRACT: THIS PAPER DESCRIBES HOW THE WASTEWATER TREATMENT PLANT PROPOSED FOR THE TOWN OF HILLSBOROUGH, NH, QUALIFIED AS AN INNOVATIVE PROJECT UNDER THE CLEAN WATER ACT OF 1977. THE PROJECT WAS ABLE TO QUALIFY AS INNOVATIVE BASED ON CONSIDERABLE ENERGY SAVINGS PROJECTED FOR THE PROJECT. AS A RESULT OF THE APPROVAL AS INNOVATIVE, THE TOWN WILL RECEIVE ADDITIONAL CONSTRUCTION FUNDS AND SAVE FROM 30 TO 70% IN ENERGY FOR OPERATION OF THE TREATMENT FACILITY. THE FACILITY WILL INCORPORATE ROTATING BIOLOGICAL CONTACTORS, SOLAR-HEATED ANAEROBIC DIGESTION, AND METHANE RECOVERY.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V52 N10

IRIS ACCESSION NUMBER: EW005630

PUBLICATION DATE: OCT 80

TITLE: RELATIONSHIP BETWEEN ORGANIC LOADING, DISSOLVED OXYGEN CONCENTRATION AND SLUDGE SETTLEABILITY IN THE COMPLETELY-MIXED ACTIVATED SLUDGE PROCESS.

PERSONAL AUTHOR: PALM, JONATHAN C.; AND OTHERS

DESCRIPTOR: *ACTIVATED SLUDGE; *BULKING; *DESIGN; *MICROORGANISIMS; *ORGANIC LOADING; *OPERATIONS (WASTEWATER); *SLUDGE SETTLEABILITY; *WASTEWATER TREATMENT; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 2484-2506P.

ABSTRACT: THE OUTGROWTH OF FILAMENTOUS MICRO ORGANISIMS FROM THE ACTIVATED SLUDGE FLOC TO PRODUCE A BULKING ACTIVATED SLUDGE IS A FUNCTION OF ORGANIC LOADING AND THE RATIO OF FOOD TO MICRO ORGANISMS IN A COMPLETELY MIXED ACTIVATED SLUDGE SYSTEM. BASICALLY THE HIGHER THE RATIO THE HIGHER THE BULK DISSOLVED OXYGEN CONCENTRATION REQUIRED TO PREVENT FILAMENTOUS ORGANISM OUTGROWTH AND SLUDGE BULKING. A COMPLETELY-MIXED ACTIVATED SLUDGE SYSTEM THAT HAS BULKED BECAUSE ITS BULK DISSOLVED OXYGEN CONCENTRATION IS TO LOW TO PREVENT FILAMENT OUTGROWTH AT A PARTICULAR FOOD TO MICRO ORGANISM RATIO, CAN BE MADE TO SETTLE PROPERLY BY THE SOLE ACTION OF RAISING THE BULK DISSOLVED OXYGEN. FROM A SERIES OF EXPERIMENTS ON DOMESTIC WASTEWATER, A RELATIONSHIP IS DEVELOPED BETWEEN THE FOOD TO MICRO ORGANISM RATIO OF A COMPLETELY-MIXED ACTIVATED SLUDGE SYSTEM AND THE BULK DISSOLVED OXYGEN REQUIRED TO PREVENT BULKING.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V52 N10

IRIS ACCESSION NUMBER: EW005631

PUBLICATION DATE: OCT 80

TITLE: STATISTICAL APPROACH TO INFILTRATION/INFLOW ANALYSES.

PERSONAL AUTHOR: NUTE, W. E.

DESCRIPTOR: ENVIRONMENTAL PROTECTION AGENCY; *FLOODING; FEDERAL WATER POLLUTION CONTROL ACT; *FLOW PREDICTION; *INFILTRATION; *INFLOW; *MODELS; *STATISTICS; *SEWERS; *WASTEWATER COLLECTION; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 2507-2515P.

ABSTRACT: THIS PAPER DESCRIBES STATISTICAL METHODS USED TO PREPARE INFILTRATION/INFLOW ANALYSES FOR 12 SEWER SYSTEMS IN MARION COUNTY, CALIFORNIA. THE ANALYSIS CONFORM TO THE STATE BASIN PLAIN FOR SAN FRANCISO BAY THAT ESTABLISHED THREE POSSIBLE MAINTENANCE LEVELS FOR CONTROL OF WET WEATHER FLOWS. THE CONCEPT ALLOWS FOR VIOLATION OF SECONDARY TREATMENT STANDARDS FOR UNUSUALLY SEVERE RAIN STORMS OF CERTAIN RETURN FREQUENCIES WHERE THE RECEIVING WATERS ARE DETERMINED NOT TO BE SENSITIVE TO SUCH WINTER TIME DISCHARGES. AN ANALOGY IS DRAWN BETWEEN THE PREDICTION OF WET WEATHER WASTEWATER FLOWS AND THE FREQUENCY ANALYSIS USED IN HYDROLOGY FOR THE PREDICTION OF FLOOD FLOWS. THIS DEPENDS ON THE RECOGNITION THAT WET-WEATHER FLOWS ARE MORE COMPLEX THAN REPRESENTED BY THE INFILTRATION AND INFLOW COMPONENTS DEFINED BY THE ENVIRONMENTAL PROTECTION AGENCY. ALSO DISCUSSED ARE WET WEATHER FLOW TREATMENT STRATEGIES FOR FLOW RETURN FREQUENCIES USED IN DEFINING THE THREE MAINTENANCE LEVELS. ESTIMATES ARE GIVEN OF THE PROBABILITY OF VIOLATION OF SECONDARY TREATMENT STANDARDS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V52 N10

IRIS ACCESSION NUMBER: EW005632

PUBLICATION DATE: OCT 80

TITLE: SAFETY CONSIDERATIONS IN HANDLING ACTIVATED CARBON.

PERSONAL AUTHOR: STUDGEION, GEORGE E.; AND OTHERS

DESCRIPTOR: *ACCIDENT PREVENTION; *ACTIVATED CARBON; CASE HISTORIES; *MATERIALS HANDLING; *POLLUTION CONTROL; *SAFETY; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 2516-2522P.

ABSTRACT: ACTIVATED CARBON HAS GAINED WIDE ACCEPTANCE THROUGHOUT THE WATER POLLUTION CONTROL INDUSTRY AND PROMISES TO BE MORE WIDELY USED IN THE WATER INDUSTRY. IT HAS TYPICALLY BEEN VIEWED AS AN INNOCUOUS MATERIAL FREE OF OCCUPATIONAL HAZARDS. HOWEVER, RECENT CASE HISTORIES INVOLVING SEVERAL INJURIES AND TWO DEATHS GIVE RISE FOR CONCERN AND REQUIRE CAUTION IN CONSTRUCTION AND OPERATION TO PREVENT FUTURE INJURIES. FURTHER MORE, ADEQUATE PLANNING AND SOUND DESIGN PRACTICE CAN REAP VALUABLE RETURNS IN PROVIDING SAFE OPERATING EQUIPMENT. SPECIFIC HAZARDS COMMONLY ENCOUNTERED IN ACTIVATED CARBON ADSORPTION SYSTEMS ARE PRESENTED AND RECOMMENDATIONS FOR DESIGN AND OPERATING IMPROVEMENTS ARE MADE. SEVERAL RECORDED CASE HISTORIES OF INJURIES AND FATALITIES INVOLVING ACTIVATED CARBON ARE PRESENTED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V52 N10

IRIS ACCESSION NUMBER: EW005633

PUBLICATION DATE: OCT 80

TITLE: ODOR CONTROL: AN OPERATORS GUIDE.

PERSONAL AUTHOR: HENRY, J. G.; GEHR, R.

DESCRIPTOR: AMMONIA; *GUIDES; HYDROGEN SULFIDE; *INSTRUCTIONAL MATERIALS; LITERATURE REVIEWS; *ODORS; *ODORS PREVENTION; *ODOR CONTROL; *QUALITY CONTROL; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 2523-2537P.

ABSTRACT: THIS PAPER INCLUDES A DISCUSSION OF THE IDENTIFICATION AND CAUSES OF ODORS, AND REPORTS ON THE RESULTS OF ODOR SURVEYS CONDUCTED AT 142 PLANTS IN ONTARIO. GAS CHROMATOGRAPHY WAS USED TO ANALYZE THE ODORS FROM FIVE OF THESE PLANTS HAVING SIGNIFICANT ODOR PROBLEMS AND REPRESENTING A RANGE OF PLANT SIZES. METHODS OF ODOR CONTROL IN ORDER OF USEFULNESS TO THE OPERATOR ARE LISTED, AND 15 CASE STUDIES ILLUSTRATING SATISFACTORY SOLUTIONS ARE TABULATED. FINALLY, THE PAPER INCLUDES A STEP-BY-STEP PROCEDURE THAT THE OPERATOR CAN USE AS A GUIDE TO THE PREVENTION AND CONTROL OF WASTEWATER TREATMENT PLANT ODORS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V52 N10

IRIS ACCESSION NUMBER: EW005634

PUBLICATION DATE: OCT 80

TITLE: START-UP PROBLEMS OF SLUDGE DEWATERING FACILITY.

PERSONAL AUTHOR: HANSEN, BLAIR E.; AND OTHERS

DESCRIPTOR: *DEWATERING FACILITIES; *DESIGN; *FACILITIES; INSTRUMENTATION; MACHINERY; *OPERATIONS (WASTEWATER); *SLUDGE; SOLIDS PROCESSING; *START-UP; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 2558-2570P.
ABSTRACT: THIS PAPER DISCUSSES START-UP PROBLEMS ENCOUNTERED DURING THE FIRST TWO YEARS OF OPERATION OF A TWO-STAGE DIGESTED SLUDGE DEWATERING STATION AT A LARGE WATER POLLUTION CONTROL PLANT. AREAS OF CONCERN TO PLANNERS, DESIGNERS, AND OPERATORS INCLUDE MECHANICAL PROBLEMS WITH INSTRUMENTATION AND MACHINERY FACILITY DESIGN, SELECTION, STORAGE, AND HANDLING OF THE DEWATERED SLUDGE, AND VARIATION IN SLUDGE CHARACTERISTICS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V52 N10

IRIS ACCESSION NUMBER: EW005635

PUBLICATION DATE: OCT 80

TITLE: MECHANISMS AND METHODS FOR POLYMER CONDITIONING OF ACTIVATED SLUDGE.

PERSONAL AUTHOR: NOVAK, JOHN T.; HAUGAN, BIORN-ERIK

DESCRIPTOR: *ACTIVATED SLUDGE; *CONDITIONING; *DEWATERING; MIXING; *OPERATIONS (WASTEWATER); *POLYMERS; *POLYMER CONDITIONING; *SYNTHETIC ORGANIC POLYMERS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 2571-2580P.

ABSTRACT: A SURFACE ADSORPTION MODEL IS USED TO EXPLAIN THE CONDITIONING EFFECT OF POLYMERS AND THE EFFECT OF MIXING OR POLYMER DOSE REQUIREMENTS. EXPERIMENTAL DATA SHOW THAT THE OPTIONAL POLYMER DOSE VARIES WITH THE MIXING TIME, INTENSITY, AND SLUDGE SOLIDS CONCENTRATION. THERE IS NO ONE OPTIMAL POLYMER DOSE FOR A SLUDGE, BUT RATHER THE DOSE MUST BE SELECTED UNDER MIXING CONDITIONS THAT MATCH THOSE OF THE DEWATERING PROCESS TO BE USED. USING A PILOT FILTER PRESS, IT WAS SHOWN THAT SLUDGES THAT WERE CONDITIONED USING RAPID MIXING REQUIRED MORE POLYMER, BUT WERE MUCH MORE RESISTANT TO DETERIORATION THAN THOSE CONDITIONED UNDER MORE GENTLE MIXING CONDITIONS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V52 N10

IRIS ACCESSION NUMBER: EW005636

PUBLICATION DATE: OCT 80

TITLE: A MODEL FOR EVALUATING THE DISPERSION OF WASTEWATER PLANT ODORS.

PERSONAL AUTHOR: BALLING, ROBERT C., JR.; REYNOLDS, CARROL E.

DESCRIPTOR: AEROSOLS; *DISPERSION; *EVALUATION; FACILITIES; *MODELS; *ODORS; *ODOR CONTROL; *OPERATIONS (WASTEWATER); URBAN AREAS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 2589-2593P.
ABSTRACT: THE ODOR PROBLEM ASSOCIATED WITH WASTEWATER TREATMENT FACILITIES HAS BECOME A SIGNIFICANT COMPONENT IN THE MANAGEMENT OF URBAN ENVIRONMENT. IN THIS INVESTIGATION, AN ATMOSPHERIC DISPERSION MODEL WAS DEVELOPED TO ESTIMATE THE SPATIAL PATTERNS IN THE CONCENTRATIONS OF ODORS EMANATING FROM A WASTEWATER PLANT IN LINCOLN, NEBRASKA. MODEL OUTPUTS INCLUDED A SERIES OF MAPS DISPLAYING ODOR CONCENTRATIONS UNDER GIVEN METEOROLOGICAL CONDITIONS AND THE FREQUENCY OF ODOR DAYS FOR SEASONAL OR ANNUAL TIME PERIODS. THE IMPLICATIONS OF THE RESULTS WERE DISCUSSED, AND SUGGESTIONS FOR FURTHER RESEARCH WERE PRESENTED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V52 N10

IRIS ACCESSION NUMBER: EW005637

PUBLICATION DATE: JUL 80

TITLE: MERCURY. WATER QUALITY STANDARDS CRITERIA DIGEST. A COMPILATION OF STATE/FEDERAL CRITERIA.

DESCRIPTOR: ENVIRONMENTAL PROTECTION AGENCY; *FEDERAL CRITERIA; *HEAVY METALS; *MERCURY; *POLLUTION STANDARDS; POLLUTION; QUALITY CRITERIA; *REGULATIONS; *STATE CRITERIA; SURFACE WATER; *WATER QUALITY; *WATER QUALITY STANDARDS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 29P.

ABSTRACT: THIS DIGEST IS A COMPILATION OF EXCERPTS FROM THE INDIVIDUAL STATE-FEDERAL WATER QUALITY STANDARDS WHICH ESTABLISH POLLUTION SPECIFIC CRITERIA FOR NAVIGABLE SURFACE WATERS. TOXIC LEVELS OF MERCURY ARE USUALLY ASSOCIATED WITH MINING OR AGRICULTURAL ACTIVITIES OR DISCHARGES FROM WOOD PROCESSING FACILITIES. THIS DIGEST CONTAINS INFORMATION ON THE RECOMMENDED LEVELS OF MERCURY FOR DOMESTIC WATER SUPPLIES, FRESHWATER AQUATIC LIFE AND WILDLIFE, AND MARINE AQUATIC LIFE.

AVAILABILITY: NALESNIK ASSOCIATES INCORPORATED, 505 ELEVENTH STREET, S.E., WASHINGTON, DC 20003

IRIS ACCESSION NUMBER: EW005638

PUBLICATION DATE: DEC 79

TITLE: DISSOLVED SOLIDS. WATER QUALITY STANDARDS CRITERIA DIGEST A COMPILATION OF STATE/FEDERAL CRITERIA.

DESCRIPTOR: *DISSOLVED SOLIDS; ENVIRONMENTAL PROTECTION AGENCY; *FEDERAL CRITERIA; *POLLUTION STANDARDS; *POLLUTION; QUALITY CRITERIA; *REGULATIONS; *STATE CRITERIA; SURFACE WATER; *SOLIDS; *WATER QUALITY; *WATER QUALITY STANDARDS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 19P. PRICE: FREE OF CHARGE

ABSTRACT: THIS DIGEST CONTAINS EXCERPTS FROM THE INDIVIDUAL STATE-FEDERAL WATER QUALITY STANDARDS ESTABLISHING POLLUTANT SPECIFIC CRITERIA FOR NAVIGABLE SURFACE WATERS. NATURAL WATERS CONTAIN DISSOLVED SOLIDS, CONSISTING MAINLY OF CARBONATES, BICARBONATES, CHLORIDES, SULFATES, PHOSPHATES, AND POSSIBLY NITRATES WITH TRACES OF METALLIC ELEMENTS. HOWEVER, INCREASED CONCENTRATIONS OF THESE SOLIDS CAN BE UNDESIRABLE AND RESULT IN DETRIMENTAL EFFECTS.

AVAILABILITY: U.S. ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF WATER PLANNING AND STANDARD, WASHINGTON, D.C. 20460

INSTITUTION NAME: UNITED STATES ENVIRONMENTAL PROTECTION AGENCY.

IRIS ACCESSION NUMBER: EW005639

PUBLICATION DATE: JUN 80

TITLE: ZINC. WATER QUALITY STANDARDS CRITERIA DIGEST. A COMPILATION OF STATE/FEDERAL CRITERIA.

DESCRIPTOR: ENVIRONMENTAL PROTECTION AGENCY; *FEDERAL CRITERIA; *HEAVY METALS; *POLLUTION STANDARDS; POLLUTION; QUALITY CRITERIA; *REGULATIONS; *STATE CRITERIA; SURFACE WATER; *WATER QUALITY; *WATER QUALITY STANDARDS; *WATER POLLUTION CONTROL; *ZINC

DESCRIPTIVE NOTE: 30P.

ABSTRACT: THIS DIGEST IS A COMPILATION OF EXCERPTS FROM THE INDIVIDUAL STATE-FEDERAL WATER QUALITY STANDARDS WHICH ESTABLISH POLLUTION SPECIFIC CRITERIA FOR NAVIGABLE SURFACE WATERS. TOXIC LEVELS OF ZINC ARE USUALLY THE RESULT OF GALVANIZING IRON AND STEEL SURFACES, OR DYING ALLOYS. INFORMATION IS GIVEN ON THE RECOMMENDED LEVELS OF ZINC FOR THE DOMESTIC WATER SUPPLY AND FRESHWATER AQUATIC LIFE.

AVAILABILITY: NALESNIK ASSOCIATES INCORPORATED, 505 ELEVENTH STREET, S.E. WASHINGTON, DC 20003

IRIS ACCESSION NUMBER: EW005640

PUBLICATION DATE: JUL 80

TITLE: COPPER. WATER QUALITY STANDARDS CRITERIA DIGEST. A COMPILATION OF STATE/FEDERAL CRITERIA.

DESCRIPTOR: *COPPER; ENVIRONMENTAL PROTECTION AGENCY; *FEDERAL CRITERIA; *HEAVY METALS; *POLLUTION STANDARDS; POLLUTION; QUALITY CRITERIA; *REGULATIONS; *STATE CRITERIA; SURFACE WATER; *WATER QUALITY; *WATER QUALITY STANDARDS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 30P.

ABSTRACT: THIS DIGEST IS A COMPILATION OF EXCERPTS FROM THE INDIVIDUAL STATE-FEDERAL WATER QUALITY STANDARDS WHICH ESTABLISH POLLUTION SPECIFIC CRITERIA FOR NAVIGABLE SURFACE WATERS. INFORMATION IS GIVEN ON RECOMMENDED LEVELS OF COPPER FOR DOMESTIC WATER SUPPLIES, AND FRESHWATER AND MARINE AQUATIC LIFE.

AVAILABILITY: NALESNIK ASSOCIATES INCORPORATED, 505 ELEVENTH STREET, WASHINGTON, DC 20003

IRIS ACCESSION NUMBER: EW005641

PUBLICATION DATE: JUL 80

TITLE: GENERAL TOXIC SUBSTANCES. WATER QUALITY STANDARDS CRITERIA DIGEST. A COMPILATION OF STATE/FEDERAL CRITERIA.

DESCRIPTOR: ENVIRONMENTAL PROTECTION AGENCY; *FEDERAL CRITERIA; *POLLUTION STANDARDS; POLLUTION; QUALITY CRITERIA; *REGULATION; *STATE CRITERIA; SURFACE WATER; *TOXIC SUBSTANCES; *WATER QUALITY; *WATER QUALITY STANDARDS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 25P.

ABSTRACT: THIS DIGEST IS A COMPILATION OF EXCERPTS FROM THE INDIVIDUAL STATE-FEDERAL WATER QUALITY STANDARDS WHICH ESTABLISH POLLUTION SPECIFIC CRITERIA FOR NAVIGABLE SURFACE WATERS. INFORMATION IS GIVEN ON THE RECOMMENDED LEVELS OF GENERAL TOXIC SUBSTANCES WHICH PREVENT ADVERSE PHYSIOLOGICAL RESPONSES IN HUMANS, ANIMALS AND PLANTS.

AVAILABILITY: NALESNIK ASSOCIATES INCORPORATED, 505 ELEVENTH STREET, S.E. WASHINGTON, DC 20003

IRIS ACCESSION NUMBER: EW005642

PUBLICATION DATE: JUL 80

TITLE: ARSENIC. WATER QUALITY STANDARDS CRITERIA DIGEST. A COMPILATION OF STATE/FEDERAL CRITERIA.

DESCRIPTOR: *ARSENIC; ENVIRONMENTAL PROTECTION AGENCY; *FEDERAL CRITERIA; *HEAVY METALS; *POLLUTION STANDARDS; POLLUTION; QUALITY CRITERIA; *REGULATIONS; *STATE CRITERIA; SURFACE WATER; *WATER QUALITY; *WATER QUALITY STANDARDS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 29P.

ABSTRACT: THIS DIGEST IS A COMPILATION OF EXCERPTS FROM THE INDIVIDUAL STATE-FEDERAL WATER QUALITY STANDARDS, WHICH ESTABLISH POLLUTION SPECIFIC CRITERIA FOR NAVIGABLE SURFACE WATERS. IT CONTAINS INFORMATION ON RECOMMENDED LEVELS OF ARSENIC FOR DOMESTIC WATER SUPPLIES AND IRRIGATION CROPS.

AVAILABILITY: NALESNIK ASSOCIATES INCORPORATED, 505 ELEVENTH STREET, S.E. WASHINGTON, DC 20003

IRIS ACCESSION NUMBER: EW005643

PUBLICATION DATE: JUL 80

TITLE: CADMIUM. WATER QUALITY STANDARDS CRITERIA DIGEST. A COMPILATION OF STATE/FEDERAL CRITERIA.

DESCRIPTOR: *CADMIUM; ENVIRONMENTAL PROTECTION AGENCY; *FEDERAL CRITERIA; *HEAVY METALS; *POLLUTION STANDARDS; POLLUTION; QUALITY CRITERIA; *REGULATIONS; *STATE CRITERIA; SURFACE WATER; *WATER QUALITY; *WATER QUALITY STANDARDS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 30P.

ABSTRACT: THIS DIGEST IS A COMPILATION OF EXCERPTS FROM THE INDIVIDUAL STATE-FEDERAL WATER QUALITY STANDARDS WHICH ESTABLISH POLLUTANT SPECIFIC CRITERIA FOR NAVIGABLE SURFACE WATERS. TOXIC CADMIUM LEVELS ARE USUALLY THE RESULT OF MINING AND SMELTING OPERATIONS OR ELECTROPLATING, TEXTILE, PAINT AND CHEMICAL INDUSTRIES. THIS DIGEST CONTAINS INFORMATION ON THE RECOMMENDED LEVELS OF CADMIUM FOR MARINE AND FRESHWATER LIFE.

AVAILABILITY: NALESNIK ASSOCIATES INCORPORATED, 505 ELEVENTH STREET, S.E. WASHINGTON, DC 20003

IRIS ACCESSION NUMBER: EW005644

PUBLICATION DATE: JUL 80

TITLE: TEMPERATURE. WATER QUALITY STANDARDS CRITERIA DIGEST. A COMPILATION OF STATE/FEDERAL CRITERIA.

DESCRIPTOR: *FEDERAL CRITERIA; *POLLUTION STANDARDS; *STATE CRITERIA; *SURFACE WATER; *TEMPERATURE; *WATER QUALITY; *WATER QUALITY STANDARDS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 65P.

ABSTRACT: THIS DIGEST IS COMPILED TO PROVIDE GENERAL INFORMATION TO THE PUBLIC AS WELL AS TO FEDERAL, STATE, AND LOCAL OFFICIALS. IT CONTAINS EXCERPTS FROM THE INDIVIDUAL FEDERAL-STATE WATER QUALITY STANDARDS ESTABLISHING THERMAL POLLUTANT CRITERIA FOR INTERSTATE SURFACE WATERS.

AVAILABILITY: UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF WATER REGULATIONS AND STANDARDS, WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW005645

PUBLICATION DATE: JUL 80

TITLE: CHROMIUM. WATER QUALITY STANDARDS CRITERIA DIGEST. A COMPILATION OF STATE/FEDERAL CRITERIA.

DESCRIPTOR: *CHROMIUM; *FEDERAL CRITERIA; HEAVY METALS; *POLLUTION STANDARDS; *STATE CRITERIA; *SURFACE WATER; *WATER QUALITY; *WATER QUALITY STANDARDS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 30P.

ABSTRACT: THIS DIGEST WAS COMPILED TO PROVIDE GENERAL INFORMATION TO THE PUBLIC AS WELL AS TO FEDERAL, STATE, AND LOCAL OFFICIALS. IT CONTAINS EXCERPTS FROM THE INDIVIDUAL STATE-FEDERAL WATER QUALITY STANDARDS ESTABLISHING POLLUTANT SPECIFIC CRITERIA FOR NAVIGABLE SURFACE WATERS. THIS REPORT DEALS WITH SPECIFIC POLLUTANT STANDARDS OF CHORMIUM FOR DOMESTIC WATER SUPPLIES AND FOR FRESHWATER AQUATIC LIFE.

AVAILABILITY: NALESNIK ASSOCIATES INCORPORATED, 505 ELEVENTH STREET, S.E. WASHINGTON, DC 20003

IRIS ACCESSION NUMBER: EW005646

PUBLICATION DATE: JUL 80

TITLE: IRON. WATER QUALITY STANDARDS CRITERIA DIGEST. A COMPILATION OF STATE/FEDERAL CRITERIA.

DESCRIPTOR: *FEDERAL CRITERIA; *IRON; *METALS; *POLLUTION STANDARDS; *STATE CRITERIA; *SURFACE WATER; TRACE ELEMENTS; *WATER QUALITY; *WATER QUALITY STANDARDS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 30P.

ABSTRACT: THIS DIGEST WAS COMPILED TO PROVIDE GENERAL INFORMATION TO THE PUBLIC AS WELL AS TO FEDERAL, STATE, AND LOCAL OFFICIALS. IT CONTAINS EXCERPTS FROM THE INDIVIDUAL STATE-FEDERAL WATER QUALITY STANDARDS ESTABLISHING POLLUTANT SPECIFIC CRITERIA FOR NAVIGABLE SURFACE WATERS. THIS REPORT DEALS WITH SPECIFIC POLLUTANT STANDARDS OF IRON FOR DOMESTIC WATER SUPPLIES AND FRESHWATER AQUATIC LIFE.

AVAILABILITY: NALESNIK ASSOCIATES INCORPORATED, 505 ELEVENTH STREET, S.E. WASHINGTON, DC 20003

IRIS ACCESSION NUMBER: EW005647

PUBLICATION DATE: AUG 80

TITLE: TRAINING FOR OPERATION AND MAINTENANCE OF CHLORINATION EQUIPMENT.

PERSONAL AUTHOR: DELVECCHIO, FRED; HARTMANN, ED

DESCRIPTOR: *CHLORINATION; *DISINFECTION; *EQUIPMENT; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *OPERATIONS (WASTEWATER); *TRAINING; *TRAINING MATERIALS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 10P.

ABSTRACT: THIS PRESENTATION DESCRIBES HOW THE WASHINGTON ENVIRONMENTAL TRAINING RESOURCE CENTER AT GREEN RIVER COMMUNITY COLLEGE USED A SYSTEMATIC INSTRUCTIONAL DEVELOPMENT PROCESS TO PUT TOGETHER A COURSE FOR OPERATION AND MAINTENANCE OF CHLORINATION EQUIPMENT. IT DESCRIBES OTHER TRAINING COURSES AND HOW THESE PAST PROGRAMS WERE INVOLVED IN FORMULATING OR DEVELOPING THE GREEN RIVER TRAINING COURSE. IT ALSO SUGGESTS HOW THE COURSE COULD BE FURTHER DEVELOPED AND REFINED IN THE FUTURE.

AVAILABILITY: WASHINGTON ENVIRONMENTAL TRAINING RESOURCE CENTER, GREEN RIVER COMMUNITY COLLEGE, AUBURN, WA 98002

IRIS ACCESSION NUMBER: EW005648

PUBLICATION DATE: 80

TITLE: BASIC SUPERVISION AND BASIC MANAGEMENT, PRINCIPLES AND PRACTICES PART 1, AND TEXT-SUPERVISION. THE DIRECTION OF PEOPLE AT WORK.

PERSONAL AUTHOR: KOREN, HERMAN

DESCRIPTOR: ATTITUDES; COMMUNICATION; HUMAN RELATIONS; HEALTH; *INDEPENDENT STUDY; *INSTRUCTIONAL MATERIALS; *LEADERSHIP; *MANAGEMENT; MOTIVATION; *PERSONNEL; *SUPERVISION; SECURITY; SAFETY; TRAINING; WORKER SELECTION; *WORK ENVIRONMENT

DESCRIPTIVE NOTE: 192P. PRICE: INDIVIDUAL FOR COURSE-$95.00, GROUP FOR COURSE-$85.00

ABSTRACT: THIS PACKAGE CONTAINS THE TEXT AND MATERIALS NECESSARY FOR AN INDEPENDENT STUDY COURSE DEALING WITH BASIC SUPERVISION AND BASIC MANAGEMENT PRINCIPLES AND PRACTICES. THE COURSE EXAMINES ORGANIZATIONAL STRUCTURE, THE MANAGERIAL FUNCTION, HUMAN BEHAVIOR, AND THE ROLE OF THE SUPERVISIOR IN MANAGEMENT.

AVAILABILITY: INDIANA STATE UNIVERSITY, INDEPENDENT STUDY AC 220 TERRE HAUTE, IN 47809, DR HERMAN KOREN, TELEPHONE: 812-232-6311

IRIS ACCESSION NUMBER: EW005649

PUBLICATION DATE: 80

TITLE: BASIC SUPERVISION AND BASIC MANAGEMENT, PRINCIPLES AND PRACTICES, PART 2.

PERSONAL AUTHOR: KOREN, HERMAN

DESCRIPTOR: ATTITUDES; *COMMUNICATIONS; *CIVIL RIGHTS; DISCIPLINE; *HUMAN RELATIONS; HEALTH; *INSTRUCTIONAL MATERIALS; *INDEPENDENT STUDY; *MANAGEMENT; *PEOPLE MANAGEMENT; PERFORMANCE RATINGS; *SUPERVISION; SAFETY; UNIONS

DESCRIPTIVE NOTE: 208P. PRICE: INDIVIDUAL FOR COURSE-$85.00, GROUP FOR COURSE-$75.00

ABSTRACT: THE MATERIAL PRESENTED IN PART II OF THIS INDEPENDENT STUDY COURSE CONTAINS NINE ASSIGNMENTS AND TWO EXAMINATIONS DEALING WITH BASIC SUPERVISION AND BASIC MANAGEMENT PRINCIPLES AND PRACTICES. TOPICS COVERED INCLUDE COMMUNICATIONS, DISCIPLINARY ACTION, PERFORMANCE RATINGS, CIVIL RIGHTS, UNIONS, HEALTH AND SAFETY.

AVAILABILITY: INDIANA STATE UNIVERSITY, INDEPENDENT STUDY OFFICE, AC 220, TERRE HAUTE, IN 47809, DR HERMAN KOREN, TELEPHONE: 812-232-6311

IRIS ACCESSION NUMBER: EW005650

PUBLICATION DATE: 77

TITLE: PESTICIDE MANAGEMENT AND INSECTICIDE RESISTANCE.

PERSONAL AUTHOR: WATSON, DAVID L.; BROWN, A. W. A.

DESCRIPTOR: *APPLICATION TECHNIQUES; AGRICULTURAL PESTS; CHLOROFLUOROCARBONS; ECONOMICS; *INSECTICIDE RESISTANCE; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; *PESTICIDES; PESTICIDE RESIDUES; *SAFETY; URBAN PESTS

DESCRIPTIVE NOTE: 630P. PRICE: $36.00

ABSTRACT: THIS VOLUME IS A COLLECTION OF PAPERS DEALING WITH THE DEVELOPMENT AND REGULATION OF PESTICIDE MANAGEMENT. TOPICS COVERED INCLUDE: PESTICIDE SAFETY, APPLICATION TECHNIQUES, INSECTICIDE RESISTANCE, FLUOROHYDROCARBON PROPELLENTS AND OZONE, MANAGEMENT OF URBAN PESTS, AND INTERNATIONAL PLANT PROTECTION.

AVAILABILITY: ACADEMIC PRESS, INC., 111 FIFTH AVENUE, NEW YORK, NY 10003

IRIS ACCESSION NUMBER: EW005651

PUBLICATION DATE: 7 20

TITLE: WASTE RECYCLING AND POLLUTION CONTROL HANDBOOK.

PERSONAL AUTHOR: BRIDGWATER, A. V.; MUMFORD, C. J.

DESCRIPTOR: *ECONOMIC FACTORS; EFFLUENTS; ENVIRONMENTAL IMPACT; FACILITIES; *INDUSTRIAL WASTES; *INSTRUCTIONAL MATERIALS; METALS RECOVERY; *NATURAL RESOURCES; OPERATIONS (WASTEWATER); *POLLUTION CONTROL; *RECYCLING; REGULATIONS; *RESOURCE RECOVERY; *WASTE DISPOSAL; *WASTE MANAGEMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 79P. PRICE: $35.00

ABSTRACT: THIS BOOK GIVES AN OVERALL COVERAGE OF PRACTICAL MANAGEMENT OF ALL TYPES OF WASTE TO MEET THE NEEDS OF PROCESS AND PLANT ENGINEERS, MANAGERS, CHEMISTS, DESIGNERS, CONTRACTORS AND THOSE CONCERNED WITH MONITORING AND ENFORCING RELEVANT LEGISLATION. THE INTERACTIONS BETWEEN ALL FORMS OF POLLUTION ARE IDENTIFIED AND, PARTICULARLY, THE ROLE THAT RECYCLING HAS TO PLAY, NOT ONLY IN CONTROLLING POLLUTION, BUT OFTEN AS A SIGNIFICANT CONTRIBUTION TO CONTROLLING COSTS. CHAPTERS INCLUDE: (1) THE PROBLEM, (2) RECOVERY VERSUS DISPOSAL, (3) CHARACTERIZATION OF WASTES AND POLLUTANTS, (4) CRITERIA FOR CONTROL, (5) MEASUREMENT TECHNIQUES, (6) SOURCES OF WASTE, (7) PRINCIPLES AND DESIGN OF AQUEOUS EFFLUENT TREATMENT PLANT, (8) EFFLUENT TREATMENT OPERATIONS, (9) MATERIALS RECOVERY FROM LIQUID WASTE, (10) CONTROL OF DUST, FUMES, MISTS AND ODOR FROM MANUFACTURING PROCESSES, (11) PREVENTION OF POLLUTION FROM CUMBUSTION PROCESSES, (12) TREATMENT AND RECOVERY PROCESSES FOR GASEOUS POLLUTANTS, (13) INDUSTRIAL WASTE DISPOSAL, (14) DISPOSAL OF HOUSEHOLD AND OTHER SPECIAL WASTES, (15) METALS RECOVERY, (16) RECOVERY AND REUSE OF INDUSTRIAL MATERIALS OTHER THAN METALS, (17) RECOVERY OF MATERIALS FROM HOUSEHOLD REFUSE, (18) NOISE CONTROL, (19) ORGANIZATION AND PROCEDURES, (20) TECHNICAL ECONOMICS FOR WASTE TREATMENT AND RECYCLING PROCESSES, AND (21) SOURCES OF INFORMATION.

AVAILABILITY: LITTON EDUCATIONAL PUBLISHING, INC., 7625 EMPIRE DRIVE, FLORENCE, KY 41042

IRIS ACCESSION NUMBER: EW005652

PUBLICATION DATE: AUG 78

TITLE: AN OVERVIEW OF BENEFIT-COST ANALYSIS FOR WATER RESOURCES PROJECT--IMPROVEMENTS STILL NEEDED.

DESCRIPTOR: BUREAU OF RECLAMATION; *BENEFIT-COST ANALYSIS; BENEFIT-COST RATIOS; CORPS OF ENGINEERS; *FEDERAL AGENCIES; *FEDERAL PROJECTS; ORGANIZATIONAL ALTERNATIVES; SOIL CONSERVATION SERVICE; WATER RESOURCES COUNCIL; *WATER RESOURCES; *WATER RESOURCE PROJECTS

DESCRIPTIVE NOTE: 42P. PRICE: FREE OF CHARGE, MULTI COPIES $1.00-U.S. GENERAL ACCOUNTING OFFICE DISTRIBUTION SECTION, P.O. BOX 1020, WASHINGTON, D.C. 20013

ABSTRACT: DESPITE A CONTINUING AWARENESS OF THE NEED TO IMPROVE BENEFIT-COST ANALYSIS FOR MAKING DECISIONS ON WATER RESOURCE PROJECTS COSTING BILLIONS OF DOLLARS, FEDERAL AGENCIES STILL HAVE PROBLEMS PREPARING ACCURATE, UNIFORM, LOGICALLY DEVELOPED BENEFIT-COST RATIOS FOR THESE PROJECTS. THE WATER RESOURCE AGENCIES SHOULD WORK TOGETHER THROUGH THE WATER RESOURCES COUNCIL TO (1) ESTABLISH MORE SPECIFIC CRITERIA REGARDING THE VALUE AND ACCEPTABILITY OF BENEFITS, (2) DEVELOP MORE DETAILED PROCEDURES, AND (3) STRENGTHEN THEIR REVIEWS TO INSURE CORRECTLY PREPARED BENEFIT-COST ANALYSIS. THIS REPORT SUGGESTS SEVERAL ORGANIZATIONAL ALTERNATIVES TO ACHIEVE MORE OBJECTIVE AND RELIABLE BENEFIT-COST ANALYSIS.

AVAILABILITY: U.S. GENERAL ACCOUNTING OFFICE, DISTRIBUTION SECTION, ROOM 1518, 441 G STREET, N.W., WASHINGTON, DC 20548

IRIS ACCESSION NUMBER: EW005653

PUBLICATION DATE: NOV 78

TITLE: REVIEW OF THE PRESIDENT

DESCRIPTOR: ENVIRONMENTAL PROTECTION; EVALUATION; *FEDERAL PROGRAMS; FEDERAL STATE RELATIONSHIPS; *MANAGEMENT; *POLICIES; *WATER CONSERVATION; WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 34P. FREE OF CHARGE; MULTIPLE COPIES FOR $1.00 - US GENERAL ACCOUNTING OFFICE , DISTRIBUTION SECTION, P.O.BOX 1020, WASHINGTON, DC 20013

ABSTRACT: THIS PUBLICATION IS A REVIEW BY THE COMPTROLLER GENERAL OF PRESIDENT CARTER'S JUNE, 1978 WATER POLICY MESSAGE. THE REPORT SPECIFICALLY ADDRESSES THE FOLLOWING FIVE MAJOR COMPONENTS OF THAT WATER POLICY MESSAGE: (1) FEDERAL PROGRAM INITIATIVES, (2) WATER CONSERVATION, (3) ENHANCED FEDERAL/STATE COOPERATION IN WATER MANAGEMENT, (4) ENVIRONMENTAL PROTECTION, AND (5) LACK OF WATER QUALITY CONSIDERATIONS IN THE WATER POLICY MESSAGE.

AVAILABILITY: U.S.GENERAL ACCOUNTING OFFICE, DISTRIBUTION SECTION, ROOM 1518, 441 G STREET, N.W., WASHINGTON, DC 20548

IRIS ACCESSION NUMBER: EW005654

PUBLICATION DATE: 80

TITLE: LOW-MAINTENANCE, MECHANICALLY SIMPLE WASTEWATER TREATMENT SYSTEM.

PERSONAL AUTHOR: RICH, LINVIL G.

DESCRIPTOR: CHLORINATION; DISINFECTION; *DESIGN; EQUIPMENT; *FACILITIES; INDUSTRIAL WASTES; *INSTRUCTIONAL MATERIALS; MAINTENANCE; *OPERATIONS (WASTEWATER); PLANNING; SLUDGE TREATMENT; SUSPENDED SOLIDS; WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 211P. PRICE: $18.95

ABSTRACT: IDEAL FOR BOTH PRACTICING ENGINEERS AND STUDENTS OF WASTEWATER TREATMENT DESIGN, THIS BOOK DISCUSSES THE DESIGN OF SEVERAL TYPES OF LOW MAINTENANCE, MECHANICALLY SIMPLE TREATMENT SYSTEMS THAT ARE SUITABLE FOR SMALLER COMMUNITIES OR INDUSTRIES. THE BOOK ALSO DISCUSSES WASTEWATER TREATMENT FROM BOTH A THEORETICAL AND PRACTICAL POINT OF VIEW. WHENEVER POSSIBLE, THEORY IS APPLIED THROUGH A RATIONAL APPROACH TO DESIGN, AND WHEN THIS IS NOT POSSIBLE, A PRAGMATIC APPROACH IS USED. CHAPTERS INCLUDE: (1) BASIC CONSIDERATIONS, (2) PRINCIPLES OF MICROBIOLOGICAL PROCESSES, (3) ACTIVATED SLUDGE TREATMENT SYSTEMS, (4) LAGOON SYSTEMS, (5) SOLIDS REMOVAL AND TREATMENT SYSTEMS, (6) FIXED-FILM SYSTEMS, AND (7) LAND DISPOSAL PRACTICES.

AVAILABILITY: MCGRAW-HILL BOOK COMPANY, P.O. BOX 400, HIGHTSTOWN, NJ 08520

IRIS ACCESSION NUMBER: EW005655

PUBLICATION DATE: 80

TITLE: CONCRETE PIPE HANDBOOK.

DESCRIPTOR: *CONCRETE PIPES; CONSTRUCTION; CULVERTS; *DESIGN; *HANDBOOKS; HYDRAULICS; *INSTALLATION; *INSTRUCTIONAL MATERIALS; *PIPES; SEWERS

DESCRIPTIVE NOTE: 275P. PRICE: $27.50

ABSTRACT: THIS HANDBOOK PROVIDES AN UP-TO-DATE COMPILATION OF THE CONCEPTS AND THEORIES WHICH FORM THE BASIS FOR THE DESIGN AND INSTALLATION OF PRECAST CONCRETE PIPE SEWERS AND CULVERTS. THE DISCUSSIONS AND ANALYSIS HAVE BEEN PREPARED FOR USE BY PRACTICING ENGINEERS AND ENGINEERING STUDENTS, AND THE HANDBOOK IS A COMPANION VOLUME TO THE CONCRETE PIPE DESIGN MANUAL BY PROVIDING EXPLANATIONS FOR THE CHARTS, TABLES, AND DESIGN PROCEDURES SUMMARIZED IN THE DESIGN MANUAL. CHAPTERS INCLUDE: (1) DEVELOPMENT OF TECHNOLOGY, (2) MATERIALS AND MANUFACTURE, (3) HYDRAULIC DESIGN, (4) LOADS AND SUPPORTING STRENGTHS, (5) SUPPLEMENTAL DESIGN CONSIDERATIONS AND PROCEDURES, (6) DURABILITY CONSIDERATIONS, (7) DESIGN FOR SULFIDE CONTROL, (8) PRODUCT STANDARDS AND TESTING, (9) INSTALLATION, INSPECTION, AND CONSTRUCTION, AND (10) SOIL-STRUCTURE INTERACTION.

AVAILABILITY: AMERICAN CONCRETE PIPE ASSOCIATION, 8320 OLD COURTHOUSE ROAD, VIENNA, VA 22180

INSTITUTION NAME: AMERICAN CONCRETE PIPE ASSOCIATION.

IRIS ACCESSION NUMBER: EW005656

PUBLICATION DATE: 79

TITLE: SULFUR BACTERIA.

PERSONAL AUTHOR: FJERDINGSTAD, EINER

DESCRIPTOR: *BACTERIA; BIOCHEMISTRY; *CHLOROBACTERIA; *BIOLOGICAL INDICATORS; ECOLOGY; *MONITORING; PHYSIOLOGY; PHOTOSYNTHESIS; *POLLUTION; *POLLUTION MEASURES; *SULFUR BACTERIA; *WATER POLLUTION

DESCRIPTIVE NOTE: 121P. PRICE: $15.00

ABSTRACT: DURING THE LAST FEW YEARS SULFUR BACTERIA, TO AN INCREASING EXTENT, HAVE BEEN PUT TO USE IN THE BIOLOGICAL ESTIMATION OF POLLUTION. IN THEIR INVESTIGATIONS ALGOLOGISTS HAVE DESCRIBED NEW GENERA AND NEW SPECIES OF SULFUR BACTERIA, AND BIOCHEMISTS HAVE ESTABLISHED NEW DESIGNATIONS FOR INCLUSIONS IN SULFUR BACTERIA. IN THIS PAPER BIOCHEMICAL ECOLOGICAL, AND PHYSOILOGICAL INVESTIGATIONS HAVE BEEN CONSIDERED ONLY TO THE EXTENT OF THEIR BEING OF VALUE TO THE KNOWLEDGE OF SULFUR BACTERIA.

AVAILABILITY: AMERICAN SOCIETY FOR TESTING 8 MATERIALS, 1916 RACE STREET, PHILADELPHIA, PA 19103

IRIS ACCESSION NUMBER: EW005657

PUBLICATION DATE: 79

TITLE: WASTEWATER ENGINEERING: TREATMENT DISPOSAL REUSE.

DESCRIPTOR: CHEMICAL TREATMENT; DESIGN; EFFLUENTS; *ENGINEERING; FACILITIES; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WASTEWATER); *RECYCLING; *REUSE; *SLUDGE DISPOSAL; *TEXTBOOKS; WASTEWATER; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 920P. PRICE: $31.50

ABSTRACT: THIS TEXT PROVIDES A WELL ORGANIZED PRESENTATION OF THE BASIC PRINCIPLES AND PRACTICES OF WASTEWATER ENGINEERING. THE BOOK IS ARRANGED SO THAT READERS MAY APPLY THE PRINCIPLES AND PRACTICES COVERED TO THE SOLUTION OF PROBLEMS INVOLVING THE TREATMENT, DISPOSAL, AND REUSE OF WASTEWATER. CHAPTERS INCLUDE: WASTEWATER ENGINEERING: AN OVERVIEW, WASTEWATER FLOWRATES, WASTEWATER CHARACTERISTICS, WASTEWATER TREATMENT OBJECTIVES, METHODS, AND DESIGN, FUNDAMENTALS OF PROCESS ANALYSIS, PHYSICAL UNIT OPERATIONS, CHEMICAL UNIT PROCESSES, DESIGN OF FACILITIES FOR PHYSICAL AND CHEMICAL TREATMENT OF WASTEWATER, BIOLOGICAL UNIT PROCESSES, DESIGN OF FACILITIES FOR THE BIOLOGICAL TREATMENT OF WASTEWATER, DESIGN OF FACILITIES FOR THE TREATMENT AND DISPOSAL OF SLUDGE, ADVANCED WASTEWATER TREATMENT, LAND TREATMENT SYSTEMS, AND EFFLUENT DISPOSAL AND REUSE.

AVAILABILITY: MCGRAW-HILL BOOK COMPANY, P.O. BOX 400, HIGHTSTOWN, NJ 08520

INSTITUTION NAME: METCALF 8 EDDY, INC.

IRIS ACCESSION NUMBER: EW005658

PUBLICATION DATE: JUL 79

TITLE: COMPOST TOILETS.

PERSONAL AUTHOR: ADAMS, ROBIN BILLAU; AND OTHERS

DESCRIPTOR: *APPROPRIATE TECHNOLOGY; CONSTRUCTION; *COMPOST TOILETS; *COMPOSTING; *DESIGN; DISEASE; HOUSEHOLD SEWAGE; *OWNER-BUILT SYSTEMS; PUBLIC HEALTH; *SANITATION; *SANITARY FACILITIES; *TOILETS; *WASTE DISPOSAL; *WASTE RECYCLING; WATER CONSERVATION; WATER POLLUTION; *WASTE TREATMENT

DESCRIPTIVE NOTE: 51P. PRICE: $2.50

ABSTRACT: THIS GUIDE TO COMPOSTING TOILETS DISCUSSES THE PROCESS, BASIC COMPOST TOILET DESIGNS AND USER EXPERIENCES. SPECIFIC TOPICS INCLUDE: THE BIOLOGY OF THE COMPOSTING PROCESS, THE BREAKDOWN OF HUMAN WASTES THROUGH NATURAL DECOMPOSITION, EFFECTIVE MANAGEMENT OF THE COMPOSTING PROCESS, HEALTH IMPLICATIONS, LAND CONSTRUCTION, INSTALLATION, AND/OR MAINTENANCE PROBLEMS.

AVAILABILITY: NATIONAL CENTER FOR APPROPRIATE TECHNOLOGY, BOX 3838, BUTTEE, MT 59701

IRIS ACCESSION NUMBER: EW005659

PUBLICATION DATE: NOV 80

TITLE: WATER REUSE: AN UNFINISHED AGENDA.

PERSONAL AUTHOR: JOHNSON, C. C.

DESCRIPTOR: *CRITERIA; DECISION MAKING; DRINKING WATER; NONPOTABLE WATER; POTABLE WATER; PUBLIC HEALTH; *RECYCLING; RESEARCH REVIEWS; STANDARDS; *SYMPOSIA; *WATER QUALITY; *WATER RESOURCES; *WATER REUSE; WATER TREATMENT

DESCRIPTIVE NOTE: 1304-1306P.

ABSTRACT: THIS ARTICLE CONTAINS SUMMARY COMMENTS OF THE EPA SYMPOSIUM ON PROTOCOL DEVELOPMENT: CRITERIA AND STANDARDS FOR POTABLE REUSE AND FEASIBLE ALTERNATIVES, HELD JULY 29-31, 1980 AT WARRENTON, VIRGINIA. THE PURPOSE OF THE SYMPOSIUM WAS TO PROVIDE GUIDANCE WITH RESPECT TO APPROACHES, PROBLEMS, SOLUTIONS, AND NEEDED RESEARCH FOR ESTABLISHING A PATHWAY TO PROTOCOL DEVELOPMENT AND POTABLE REUSE CRITERIA AND STANDARDS FOR CONSIDERATION OF NONPOTABLE OPTIONS

AVAILABILITY: ENVIRONMENTAL SCIENCE AND TECHNOLOGY; V14 N11

IRIS ACCESSION NUMBER: EW005661

PUBLICATION DATE: DEC 78

TITLE: HOW TO DISPOSE OF HAZARDOUS WASTE--A SERIOUS QUESTION THAT NEEDS TO BE RESOLVED.

DESCRIPTOR: ENVIRONMENT; *FACILITIES; *HAZARDOUS WASTES; *MANAGEMENT; PUBLIC HEALTH; *RESOURCE CONSERVATION AND RECOVERY ACT; SAFETY; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 28P. PRICE: SINGLE COPY - NO CHARGE; MULTIPLE COPIES - $1.00 PER COPY; CHECKS OR MONEY ORDERS SHOULD BE MADE PAYABLE TO THE U. S. GENERAL ACCOUNTING OFFICE

ABSTRACT: THIS REPORT DESCRIBES (1) THE PROBLEMS WHICH WILL BE ENCOUNTERED IN IMPLEMENTING THE RESOURCE CONSERVATION AND RECOVERY ACT OF 1976 DUE TO THE LIMITED CAPACITY OF COMMERICAL HAZARDOUS WASTE MANAGEMENT FACILITIES TO SAFELY DISPOSE OF THE WASTE REGULATED AND (2) THE NEED TO PROVIDE ASSURANCES, THROUGH A FEDERALLY ADMINISTERED TRUST FUND, THAT FUNDS WILL BE AVAILABLE WHEN NEEDED TO CORRECT SITES PERMITTED UNDER THE ACT SHOULD THEY CAUSE ENVIRONMENTAL OR OTHER DAMAGE AFTER THEY ARE CLOSED

AVAILABILITY: SINGLE COPIES - U.S. GENERAL ACCOUNTING OFFICE, DISTRIBUTION SECTION, ROOM 1518, 441 G STREET, NW, WASHINGTON, DC 20548; MULTIPLE COPIES - U.S. GENERAL ACCOUNTING OFFICE, DISTRIBUTION SECTION, P.O. BOX 1020, WASHINGTON, DC 20013

IRIS ACCESSION NUMBER: EW005662

PUBLICATION DATE: JAN 80

TITLE: INTERIM METHOD FOR DETERMINING ASBESTOS IN WATER.

PERSONAL AUTHOR: ANDERSON, CHARLES H.; LONG J. MACARTHUR

DESCRIPTOR: *ASBESTOS; *ANALYTICAL TECHNIQUES; AMPHIBOLES; *ELECTRON MICROSCOPY; ELECTRON DIFFRACTION; *INSTRUMENTATION; *LABORATORY TECHNIQUES; *WATER POLLUTION CONTROL; *WATER RESOURCES; *WATER SAMPLES

DESCRIPTIVE NOTE: 33P. PRICE: $6.00; MICROFICHE $3.50

ABSTRACT: THIS MANUAL DESCRIBES AN INTERIM ELECTRON MICROSCOPE (EM) PROCEDURE FOR MEASURING THE CONCENTRATION OF ASBESTOS IN WATER SAMPLES. THE MAIN FEATURES OF THE METHOD INCLUDE FILTERING THE SAMPLE THROUGH A SUB-MICRON POLYCARBONATE MEMBRANE FILTER, EXAMINING AN EM SPECIMEN GRID IN A TRANSMISSION ELECTRON MICROSCOPE, AND VERIFYING FIBER IDENTITY BY SELECTED AREA ELECTRON DIFFRACTION

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW005663

PUBLICATION DATE: 75

TITLE: BEND YOUR KNEES.

DESCRIPTOR: *ACCIDENT PREVENTION; AUDIOVISUAL AIDS; *FILMS; HEALTH SERVICES; INDUSTRIAL SAFETY; *INSTRUCTIONAL MATERIALS; *LIFTING; *MANUAL LABOR; *OCCUPATIONAL SAFETY; *SAFETY

DESCRIPTIVE NOTE: FILM 22 MINUTE, COLOR, PRICE: $10.00

ABSTRACT: A MOTIVATIONAL FILM ON THE PROPER METHOD OF

LIFTING DESIGNED FOR A TOTAL WORK FORCE AUDIENCE. THE FILM IS NARRATED BY LEONARD RING OF AUKLAND, NEW ZEALAND, AN INTERNATIONAL AUTHORITY ON MANUAL LIFTING AND PREVENTION OF BACK INJURIES.

AVAILABILITY: TECHNICAL LIBRARY, AMERICAN WATER WORKS ASSOCIATION, 6666 W QUINCY AVENUE, DENVER, COLORADO 80235, TELEPHONE: (303) 794-7711

INSTITUTION NAME: INTERNATIONAL LOSS CONTROL INSTITUTE, LOGANVILLE, GA.

IRIS ACCESSION NUMBER: EW005664

PUBLICATION DATE: 79

TITLE: CROSS CONNECTIONS: THE UNSEEN HAZARD.

DESCRIPTOR: *AUDIOVISUAL AIDS; BACKFLOW; *CROSS CONNECTIONS; EQUIPMENT; *FILMS; INSTRUCTIONAL FILMS; *INSTRUCTIONAL MATERIALS; POTABLE WATER; *WATER DISTRIBUTION; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: FILM 31 1/2 MINUTES, COLOR, PRICE: $15.00

ABSTRACT: THIS FILM WAS PRODUCED FOR THE TEXAS STATE PLUMBING AND EXAMINERS BOARD AND BEGINS WITH A REVIEW OF CROSS-CONNECTIONS. PRESENTED IS AN EXHIBIT INVOLVING GLASS PIPES, MIRRORS, AND COLORED WATER TO SIMULATE CONDITIONS INVOLVING BACK SIPHONAGE, BACKFLOW, AND NEGATIVE PRESSURE. ALSO DEMONSTRATED ARE TYPES OF BACKFLOW DEVICES, BOTH FOR LOW HAZARD AND HIGH HAZARD SITUATIONS. "BEFORE AND AFTER" DEMONSTRATIONS ILLUSTRATE THE EFFECTIVENESS OF THE DEVICES IN PROTECTING THE POTABLE WATER SUPPLY.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION, TECHNICAL LIBRARY, 6666 QUINCY AVENUE, DENVER, COLORADO 80235, TELEPHONE: (303) 794-7711

INSTITUTION NAME: EPIC FILM PRODUCTION, AUSTIN, TX.

IRIS ACCESSION NUMBER: EW005665

PUBLICATION DATE: 75

TITLE: HOW TO SAVE A CHOKING VICTIM: THE HEIMLICH MANEUVER.

DESCRIPTOR: *ACCIDENT PREVENTION; *AUDIOVISUAL AIDS; *CHOKING; *FILMS; *FIRST AID; HEALTH EDUCATION; *HEIMLICH MANEUVER; *INSTRUCTIONAL MATERIALS; PUBLIC HEALTH

DESCRIPTIVE NOTE: FILM 11 MINUTES, COLOR, PRICE: $10.00

ABSTRACT: CHOKING CAN CAUSE DEATH IN JUST FOUR MINUTES. EACH YEAR AN ESTIMATED 4,000 AMERICANS DIE IN THIS WAY. THE FILM DEMONSTRATES A NEW LIFE SAVING TECHNIQUE THAT WAS DEVELOPED BY DR HENRY J HEIMLICH WHICH IS SIMPLE ENOUGH TO BE PERFORMED BY ANY INFORMED LAYMAN.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION, TECHNICAL LIBRARY, 6666 W QUINCY AVENUE, DENVER, COLORADO 80235, TELEPHONE: (303) 794-7711

INSTITUTION NAME: PARAMOUNT OXFORD FILMS, HOLLYWOOD, CA.

IRIS ACCESSION NUMBER: EW005666

PUBLICATION DATE: 77

TITLE: IS YOUR DRINKING WATER SAFE?

DESCRIPTOR: *AUDIOVISUAL AIDS; *DRINKING WATER; *FILMS; HEALTH EFFECTS; *INSTRUCTIONAL MATERIALS; POTABLE WATER; *SAFE DRINKING WATER ACT; TOXIC SUBSTANCES; WATER POLLUTION; *WATER QUALITY; WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: FILM 28 MINUTES, COLOR, PRICE: $5.00

ABSTRACT: THIS FILM PRESENTS AN OVERVIEW OF WATER TREATMENT METHODS RELATIVE TO THE SAFE DRINKING WATER ACT. THIS FILM CITES INSTANCES OF WATER CONTAMINATED BY TOXIC METALS AND OTHER FOREIGN MATERIALS, DISCUSSES THE LONG-TERM HEALTH EFFECTS AND THE IMPORTANCE FOR SAFE-GUARDING THE NATIONS DRINKING WATER SUPPLIES.

AVAILABILITY: TECHNICAL LIBRARY, AMERICAN WATER WORKS ASSOCIATION, 6666 W QUINCY AVENUE, DENVER, COLORADO 80235, TELEPHONE: (303) 794-7711

INSTITUTION NAME: CONNECTICUT PUBLIC TELEVISION THROUGH A GRANT FROM THE ENVIRONMENTAL PROTECTION AGENCY.

IRIS ACCESSION NUMBER: EW005667

PUBLICATION DATE: 76

TITLE: THE SUPERVISOR AND ARBITRATION.

DESCRIPTOR: *ADMINISTRATION; *ARBITRATION; *AUDIOVISUAL AIDS; *DISCIPLINE; EMPLOYER EMPLOYEE RELATIONSHIPS; *FILMS; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; *PERSONNEL MANAGEMENT; *SUPERVISORY TRAINING

DESCRIPTIVE NOTE: FILM 20 MINUTES, COLOR, PRICE: $13.00

ABSTRACT: THIS FILM DRAMATIZES FIVE LEADING REASONS WHY DISCIPLINARY ACTIONS ARE REVERSED, POINTS OUT THE MISTAKES SUPERVISORS MAKE IN TYPICAL DISCIPLINARY SITUATIONS, AND EXPLAINS HOW TO JUSTIFY PENALTIES WITH STEPS SO AIRTIGHT THAT A GRIEVANCE IS SELDOM FILED.

AVAILABILITY: TECHNICAL LIBRARY, AMERICAN WATER WORKS ASSOCIATION, 6666 W QUINCY AVENUE, DENVER, COLORADO 80235, TELEPHONE: (303) 794-7711

INSTITUTION NAME: BUREAU OF BUSINESS PRACTICE.

IRIS ACCESSION NUMBER: EW005668

PUBLICATION DATE: 79

TITLE: TECHNIQUES FOR SAMPLING DRINKING WATER.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; AUDIOVISUAL AIDS; *DRINKING WATER; *FILMS; *INSTRUCTIONAL MATERIALS; LABORATORY PROCEDURES; LABORATORY TECHNIQUES; *MEASUREMENT TECHNIQUES; *SAMPLING; TESTING; *WATER TREATMENT; WATER SUPPLY

DESCRIPTIVE NOTE: FILM 20 MINUTES, COLOR, PRICE: $5.00

ABSTRACT: THIS FILM SHOWS PROPER TECHNIQUES FOR SAMPLING DRINKING WATER. IT HAS BEEN SPECIFICALLY DESIGNED FOR WATER SUPPLY PERSONNEL INVOLVED IN THE ACTUAL SAMPLING OF DRINKING WATER. THE FILM DEMONSTRATES THE STEPS NECESSARY IN THE PROPER COLLECTION OF DRINKING WATER SAMPLES TO AVOID IMPROPER HANDLING THAT MIGHT ADVERSELY AFFECT THE ACCURACY AND INTEGRITY OF THE RESULTING ANALYSIS.

AVAILABILITY: TECHNICAL LIBRARY, AMERICAN WATER WORKS ASSOCIATION, 6666 W QUINCY AVENUE, DENVER, COLORADO 80135, TELEPHONE: (303) 794-7711

INSTITUTION NAME: U.S. ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF DRINKING WATER.

IRIS ACCESSION NUMBER: EW005669

TITLE: TURN ON THE WATER.

DESCRIPTOR: *AUDIOVISUAL AIDS; CORROSION; *FILMS; *FLOW CAPACITY; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *PIPE LINING; *PIPES; REPAIR; *TUBERCULATION; *WATER PIPES; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: FILM 14 MINUTES, COLOR, PRICE: $5.00

ABSTRACT: REDUCTION OF FLOW CAPACITY IS ILLUSTRATED IN THIS FILM BY EXAMINING THE EFFECTS OF INTERNAL CORROSION AND TUBERCULATION ON PIPELINE SURFACES. A SYSTEM OF REHABILITATING PIPELINE IN PLACE IS SHOWN THROUGH SEVERAL CLEANING METHODS AND APPLICATION OF A PERMANENT PROTECTIVE LINING USING THE CEMENT MORTAR SPUN LINE PROCESS.

AVAILABILITY: TECHNICAL LIBRARY, AMERICAN WATER WORKS ASSOCIATION, 6666 W QUINCY AVENUE, DENVER, COLORADO 80235, TELEPHONE: (303) 794-7711

INSTITUTION NAME: AMERON PIPE LINING DIVISION, WILMINGTON, CA.

IRIS ACCESSION NUMBER: EW005670

PUBLICATION DATE: 76

TITLE: AMMONIA NITROGEN AND KJELDAHL NITROGEN IN ENVIRONMENTAL WATERS.

DESCRIPTOR: *AMMONIA; *ANALYTICAL TECHNIQUES; AUDIOVISUAL AIDS; *FILMSTRIPS; *INSTRUCTIONAL MATERIALS; LABORATORY PROCEDURES; *LABORATORY TECHNIQUES; *NITROGEN; *SKILL DEVELOPMENT; *SLIDE PROGRAMS; TRAINING PROGRAMS; *WATER ANALYSIS; WATER QUALITY

DESCRIPTIVE NOTE: 32 SLIDES, COLOR, 35MM, PLUS DUPLICATE FILMSTRIP ACCOMPANIED BY AUDIO TAPE CASSETTE AND STUDY GUIDE, PRICE: $5.00

ABSTRACT: THIS MODULE IS DESIGNED TO ASSIST IN DEVELOPING SKILLS NEEDED TO DETERMINE THE AMMONIA IN NATURAL WATER OR WASTEWATER. A SAMPLE IS PREPARED, AMMONIA DISTILLED AND MEASURED BY NESSLER COMPARISON, TO CALCULATE THE CONCENTRATION OF AMMONIA-NITROGEN.

AVAILABILITY: TECHNICAL LIBRARY, AMERICAN WATER WORKS ASSOCIATION, 6666 W QUINCY AVENUE, DENVER, COLORADO 80135, TELEPHONE: (303) 794-7711

INSTITUTION NAME: PRODUCED BY COMMUNICATION SKILLS CORPORATION OF PRENTICE HALL MEDIA.

IRIS ACCESSION NUMBER: EW005671

PUBLICATION DATE: 76

TITLE: A GOOD DRINK OF WATER.

DESCRIPTOR: *AUDIOVISUAL AIDS; CITIZEN PARTICIPATION; *CONSUMER EDUCATION; *DRINKING WATER; *FILMS; *INSTRUCTIONAL MATERIALS; *SAFE DRINKING WATER ACT; *SLIDE PROGRAM; *WATER TREATMENT; *WATER SUPPLY

DESCRIPTIVE NOTE: 60 SLIDES, COLOR, 35MM, ACCOMPANIED BY AUDIOTAPE CASSETTE SIGNALS ARE PULSED FOR AUDIBLE OR INAUDIBLE USE. PRICE: $5.00

ABSTRACT: THIS IS AN ESPECIALLY PREPARED PRESENTATION ON THE SAFE DRINKING WATER ACT EXPLAINED IN LAYMAN TERMS. DISCUSSION OF THE ACT IS TO ENCOURAGE CONSUMER INTEREST AND INVOLVEMENT IN LOCAL WATER SUPPLY ACTIVITIES.

AVAILABILITY: TECHNICAL LIBRARY, AMERICAN WATER WORKS ASSOCIATION, 6666 W QUINCY AVENUE, DENVER, COLORADO 80235, TELEPHONE: (303) 794-7711

INSTITUTION NAME: U.S. ENVIRONMENTAL PROTECTION AGENCY.

IRIS ACCESSION NUMBER: EW005672

PUBLICATION DATE: 75

TITLE: HOW TO ANALYZE FOR A HEAVY METAL IN ENVIRONMENTAL WATERS... PART 1: ABSORPTION SPECTROSCOPY.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *AUDIOVISUAL AIDS; FILMSTRIPS; *HEAVY METALS; *INSTRUCTIONAL MATERIALS; *LABORATORY TECHNIQUES; LEAD; *SKILL DEVELOPMENT; *SLIDE PROGRAMS; *SPECTROPHOTOMETRY; *WATER ANALYSIS

DESCRIPTIVE NOTE: 40 SLIDES, COLOR, 35MM, PLUS DUPLICATE FILMSTRIP ACCOMPANIED BY AUDIOTAPE CASSETTE AND STUDY GUIDE. PRICE: $5.00

ABSTRACT: THIS MODULE IS DESIGNED TO ASSIST IN DEVELOPING SKILLS NEEDED TO ANALYIZE HEAVY METALS IN ENVIRONMENTAL WATERS USING A SPECTROPHOMETRIC TECHNIQUE. IT PROVIDES A GENERAL ANALYTICAL SCHEME FOR OVERCOMING INTERFERENCES IN HEAVY METAL ANALYSIS, SEPARTING HEAVY METALS BY SOLVENT EXTRACTION, AND ANALYZING FOR A HEAVY METAL (LEAD) USING SPECTROPHOTOMETRY.

AVAILABILITY: TECHNICAL LIBRARY, AMERICAN WATER WORKS ASSOCIATION, 6666 W QUINCY AVENUE, DENVER, COLORADO 80235, TELEPHONE: (303) 794-7711

INSTITUTION NAME: COMMUNICATION SKILLS CORPORATION OF PRENTICE HALL MEDIA.

IRIS ACCESSION NUMBER: EW005673

PUBLICATION DATE: 75

TITLE: HOW TO ANALYZE FOR A HEAVY METAL IN ENVIRONMENTAL WATER... PART II: ATOMIC ABSORPTION SPECTROSCOPY.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ATOMIC ABSORPTION SPECTROSCOPY; *AUDIOVISUAL AIDS; FILMSTRIPS; *HEAVY METALS; *INSTRUCTIONAL MATERIALS; *LABORATORY TECHNIQUES; *SKILL DEVELOPMENT; *SLIDE PROGRAMS; *WATER ANALYSIS

DESCRIPTIVE NOTE: 35 SLIDES, COLOR, 35MM, PLUS DUPLICATE FILMSTRIP ACCOMPANIED BY AUDIOTAPE CASSETTE AND STUDY GUIDE. PRICE: $5.00

ABSTRACT: THIS MODULE IS DESIGNED TO ASSIST IN DEVELOPING SKILLS NEEDED TO ANALYZE FOR A HEAVY METAL IN ENVIRONMENTAL WATERS, USING ATOMIC ABSORPTION SPECTROSCOPY.

AVAILABILITY: TECHNICAL LIBRARY, AMERICAN WATER WORKS ASSOCIATION, 6666 W QUINCY AVENUE, DENVER, COLORADO 80235, TELEPHONE: (303) 794-7711

INSTITUTION NAME: COMMUNICATION SKILLS CORPORATION OF PRENTICE HALL MEDIA.

IRIS ACCESSION NUMBER: EW005674

PUBLICATION DATE: 75

TITLE: HOW TO ANALYZE FOR A HEAVY METAL IN ENVIRONMENTAL WATERS... PART III: ANODIC STRIPPING VOLTAMMETRY.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ANODIC STRIPPING VOLTAMMETRY; *AUDIOVISUAL AIDS; FLIMSTRIPS; *HEAVY METALS; *INSTRUCTIONAL MATERIALS; *LABORATORY TECHNIQUES; SKILL DEVELOPMENT; *SLIDE PROGRAMS; *WATER ANALYSIS

DESCRIPTIVE NOTE: 31 SLIDES, COLOR, 35MM, PLUS DUPLICATE FILMSTRIP ACCOMPANIED BY AUDIOTAPE CASSETTE AND STUDY GUIDE. PRICE: $5.00

ABSTRACT: THIS MODULE IS DESIGNED TO ASSIST IN DEVELOPING SKILLS NEEDED TO ANALYZE AN ENVIRONMENTAL WATER SAMPLE FOR CERTAIN HEAVY METALS USING THE TECHNIQUE OF ANODIC STRIPPING VOLTAMMETRY.

AVAILABILITY: TECHNICAL LIBRARY, AMERICAN WATER WORKS ASSOCIATION, 6666 W QUINCY AVENUE, DENVER, COLORADO 80235, TELEPHONE: (303) 794-7711

INSTITUTION NAME: COMMUNICATION SKILLS CORPORATION OF PRENTICE HALL MEDIA.

IRIS ACCESSION NUMBER: EW005675

PUBLICATION DATE: 75

TITLE: HOW TO ANALYZE FOR CHLORINATION HYDROCARBON PESTICIDES IN WATER USING GAS CHROMATOGRAPHY.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; AUDIOVISUAL AIDS; *CHLORINATION HYDROCARBONS; FILMSTRIPS; *GAS CHROMATOGRAPHY; *INSTRUCTIONAL MATERIALS; *LABORATORY TECHNIQUES; *PESTICIDES; SKILL DEVELOPMENT; *SLIDE PROGRAMS; *WATER ANALYSIS

DESCRIPTIVE NOTE: 44 SLIDES, COLOR, 35MM, PLUS DUPLICATE FILMSTRIP ACCOMPANIED BY AUDIOTAPE CASSETTE AND STUDY GUIDE. PRICE: $5.00

ABSTRACT: THIS MODULE IS DESIGNED TO ASSIST IN DEVELOPING SKILLS NEEDED TO IDENTIFY AND MEASURE THE CONCENTRATION OF CHLORINATION HYDROCARBON PESTICIDES IN ENVIRONMENTAL WATERS USING GAS CHROMATOGRAPHY WITH AN ELECTRON CAPTURE DETECTOR.

AVAILABILITY: TECHNICAL LIBRARY, AMERICAN WATER WORKS ASSOCIATION, 6666 W QUINCY AVENUE, DENVER, COLORADO 80235, TELEPHONE: (303) 794-7711

INSTITUTION NAME: COMMUNICATION SKILLS CORPORATION OF PRENTICE HALL MEDIA.

IRIS ACCESSION NUMBER: EW005676

PUBLICATION DATE: 76

TITLE: HOW TO DETERMINE TOTAL RESIDUE.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *AUDIOVISUAL AIDS; FILMSTRIPS; *INSTRUCTIONAL MATERIALS; *LABORATORY TECHNIQUES; *RESIDUES; *SLIDE PROGRAMS; WASTEWATER; *WATER ANALYSIS

DESCRIPTIVE NOTE: 27 SLIDES, COLOR, 35MM, PLUS DUPLICATE FILMSTRIP ACCOMPANIED BY AUDIOTAPE CASSETTE AND STUDY GUIDE. PRICE: $5.00

ABSTRACT: THIS MODULE IS DESIGNED TO ASSIST IN DETERMINING TOTAL RESIDUE ON EVAPORATION OF A SAMPLE OF NATURAL OR WASTE

WATER, AND THE VOLATILE AND FIXED PORTIONS OF THIS RESIDUE.

AVAILABILITY: TECHNICAL LIBRARY, AMERICAN WATER WORKS ASSOCIATION, 6666 W QUINCY AVENUE, DENVER, COLORADO 80235, TELEPHONE: (303) 794-7711

INSTITUTION NAME: COMMUNICATION SKILLS CORPORATION OF PRENTICE HALL MEDIA.

IRIS ACCESSION NUMBER: EW005677

PUBLICATION DATE: 76

TITLE: HOW TO MEASURE ALKALINITY OF NATURAL AND WASTE WATERS.

DESCRIPTOR: *ALKALINITY; *ANALYTICAL TECHNIQUES; *AUDIOVISUAL AIDS; FILMSTRIPS; *INSTRUCTIONAL MATERIALS; *LABORATORY TECHNIQUES; SKILL DEVELOPMENT; *SLIDE PROGRAMS; *WATER ANALYSIS

DESCRIPTIVE NOTE: 39 SLIDES, COLOR, 35MM, PLUS DUPLICATE FILMSTRIP ACCOMPANIED BY AUDIOTAPE CASSETTE AND STUDY GUIDE. PRICE: $5.00

ABSTRACT: THIS MODULE IS DESIGNED TO ASSIST IN DEVELOPING SKILLS NECESSARY TO DETERMINE THE ALKALINITY OF A WATER SAMPLE, USING EITHER AN INDICATOR OR A POTENTIOMETRIC METHOD.

AVAILABILITY: TECHNICAL LIBRARY, AMERICAN WATER WORKS ASSOCIATION, 6666 W QUINCY AVENUE, DENVER, COLORADO 80235, TELEPHONE: (303) 794-7711

INSTITUTION NAME: COMMUNICATION SKILLS CORPORATION OF PRENTICE HALL MEDIA.

IRIS ACCESSION NUMBER: EW005678

PUBLICATION DATE: 76

TITLE: HOW TO MEASURE NITRATE NITROGEN IN ENVIRONMENTAL WATERS.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; AUDIOVISUAL AIDS; *BRUCINE METHOD; FILMSTRIPS; *INSTRUCTIONAL MATERIALS; *LABORATORY TECHNIQUES; *NITRATE NITROGEN; *SLIDE PROGRAMS; *WATER ANALYSIS

DESCRIPTIVE NOTE: 39 SLIDES, COLOR, 35MM, PLUS DUPLICATE FILMSTRIP ACCOMPANIED BY AUDIOTAPE CASSETTE AND STUDY GUIDE. PRICE: $5.00

ABSTRACT: THIS MODULE IS DESIGNED TO ASSIST IN ANALYZING FOR NITRATE NITROGEN IN ENVIRONMENTAL WATERS USING THE BRUCINE METHOD.

AVAILABILITY: TECHNICAL LIBRARY, AMERICAN WATER WORKS ASSOCIATION, 6666 W QUINCY AVENUE, DENVER, COLORADO 80235, TELEPHONE: (303) 794-7711

INSTITUTION NAME: COMMUNICATION SKILLS CORPORATION OF PRENTICE HALL MEDIA.

IRIS ACCESSION NUMBER: EW005679

PUBLICATION DATE: 76

TITLE: HOW TO MEASURE OIL AND GREASE IN AQUATIC ENVIRONMENTS.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *AQUATIC ENVIRONMENTS; *AUDIOVISUAL AIDS; FILMSTRIPS; *GREASE; *INSTRUCTIONAL MATERIALS; *LABORATORY TECHNIQUES; *OIL; POLLUTANTS; SKILL DEVELOPMENT; *SLIDE PROGRAMS; *WATER ANALYSIS; *WATER POLLUTION

DESCRIPTIVE NOTE: 33 SLIDES, COLOR, 35MM, PLUS DUPLICATE FILMSTRIP ACCOMPANIED BY AUDIOTAPE CASSETTE AND STUDY GUIDE. PRICE: $5.00

ABSTRACT: THIS MODULE IS DESIGNED TO ASSIST IN DEVELOPING THE SKILLS NEEDED TO DETERMINE THE EXTRACTABLE OIL AND GREASE PRESENT IN A SAMPLE TAKEN FROM AN AQUATIC ENVIRONMENT. A CALCULATION OF THE CONCENTRATION IS MADE BY EXTRACTING AND WEIGHING THOSE MOLECULES.

AVAILABILITY: TECHNICAL LIBRARY, AMERICAN WATER WORKS ASSOCIATION, 6666 W QUINCY AVENUE, DENVER, COLORADO 80235, TELEPHONE: (303) 794-7711

INSTITUTION NAME: COMMUNICATION SKILLS CORPORATION OF PRENTICE HALL MEDIA.

IRIS ACCESSION NUMBER: EW005680

PUBLICATION DATE: 76

TITLE: HOW TO MEASURE RESIDUAL CHLORINE IN ENVIRONMENTAL WATERS.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *AUDIOVISUAL AIDS; *CHLORINE; *DPD METHOD; *DISINFECTION; FILMSTRIPS; *INSTRUCTIONAL MATERIALS; *LABORATORY TECHNIQUES; *RESIDUAL CHLORINE; SKILL DEVELOPMENT; *SLIDE PROGRAMS; *WATER ANALYSIS

DESCRIPTIVE NOTE: 28 SLIDES, COLOR, 35MM, PLUS DUPLICATE FILMSTRIP ACCOMPANIED BY AUDIOTAPE CASSETTE AND STUDY GUIDE. PRICE: $5.00

ABSTRACT: THIS MODULE IS DESIGNED TO ASSIST IN DEVELOPMENT OF SKILLS NEEDED TO ANALYZE FOR RESIDUAL CHLORINE IN A WATER SAMPLE BY THE D.P.D. METHOD.

AVAILABILITY: TECHNICAL LIBRARY, AMERICAN WATER WORKS ASSOCIATION, 6666 W QUINCY AVENUE, DENVER, COLORADO 80235, TELEPHONE: (303) 794-7711

INSTITUTION NAME: COMMUNICATION SKILLS CORPORATION OF PRENTICE HALL MEDIA.

IRIS ACCESSION NUMBER: EW005681

PUBLICATION DATE: 76

TITLE: HOW TO MEASURE TOTAL PHOSPHATE IN ENVIRONMENTAL WATERS.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *AUDIOVISUAL AIDS; FILMSTRIPS; *INSTRUCTIONAL MATERIALS; *LABORATORY TECHNIQUES; *PHOSPHATES; *PHOSPHOROUS; SKILL DEVELOPMENT; *SLIDE PROGRAMS; WASTEWATER; *WATER ANALYSIS

DESCRIPTIVE NOTE: 33 SLIDES, COLOR, 35MM, PLUS DUPLICATE FILMSTRIP ACCOMPANIED BY AUDIOTAPE CASSETTE AND STUDY GUIDE. PRICE: $5.00

ABSTRACT: THIS MODULE IS DESIGNED TO ASSIST IN DEVELOPING SKILLS NEEDED TO MEASURE THE TOTAL PHOSPHOROUS IN NATURAL WATER OR WASTEWATER. PHOSPHOROUS IS DIGESTED IN A SAMPLE OF NATURAL WATER OR WASTEWATER TO ORTHO FORM. AMMONIUM MOLYBDATE AND STANNOUS CHLORIDE SOLUTIONS ARE USED FOR A COLORIMETRIC DETERMINATION OF THE PHOSPHOROUS PRESENT.

AVAILABILITY: TECHNICAL LIBRARY, AMERICAN WATER WORKS ASSOCIATION, 6666 W QUINCY AVENUE, DENVER, COLORADO 80235, TELEPHONE: (303) 794-7711

INSTITUTION NAME: COMMUNICATION SKILLS CORPORATION OF PRENTICE HALL MEDIA.

IRIS ACCESSION NUMBER: EW005682
PUBLICATION DATE: 76

TITLE: HOW TO MEASURE THE TURBIDITY OF ENVIRONMENTAL WATERS.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *AUDIOVISUAL AIDS; FILMSTRIPS; *INSTRUCTIONAL MATERIALS; *LABORATORY TECHNIQUES; SKILL DEVELOPMENT; *SLIDE PROGRAMS; *TURBIDITY; *WATER ANALYSIS

DESCRIPTIVE NOTE: 43 SLIDES, COLOR, 35MM, PLUS DUPLICATE FILMSTRIP ACCOMPANIED BY AUDIOTAPE CASSETTE AND STUDY GUIDE. PRICE: $5.00

ABSTRACT: THIS MODULE IS DESIGNED TO ASSIST IN DEVELOPING SKILLS NEEDED TO MEASURE TURBIDITY USING A NEPHELOMETER.

AVAILABILITY: TECHNICAL LIBRARY, AMERICAN WATER WORKS ASSOCIATION, 6666 W QUINCY AVENUE, DENVER, COLORADO 80235, TELEPHONE: (303) 794-7711

INSTITUTION NAME: COMMUNICATION SKILL CORPORATION OF PRENTICE MEDIA.

IRIS ACCESSION NUMBER: EW005683

PUBLICATION DATE: 76

TITLE: HOW TO MEASURE TOTAL SUSPENDED MATTER IN ENVIRONMENTAL WATERS.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *AUDIOVISUAL AIDS; FILMSTRIPS; *INSTRUCTIONAL MATERIALS; *LABORATORY TECHNIQUES; *MEASUREMENT TECHNIQUES; SKILL DEVELOPMENT; *SLIDE PROGRAMS; *SUSPENDED MATTER; *WATER ANALYSIS

DESCRIPTIVE NOTE: 35 SLIDES, COLOR, 35MM, PLUS DUPLICATE FILMSTRIP ACCOMPAINED BY AUDIOTAPE CASSETTE AND STUDY GUIDE. PRICE: $5.00

ABSTRACT: THIS MODULE IS DESIGNED TO ASSIST IN DEVELOPING SKILLS NEEDED TO DETERMINE THE TOTAL SUSPENDED MATTER IN NATURAL WATER OR WASTEWATER AND THE FIXED RESIDUE. IT DEMONSTRATES THE PREPARATION OF A CRUCIBLE, USING IT TO MEASURE SUSPENDED AND FIXED SOLIDS, AND CALCULATE THE RESULTS.

AVAILABILITY: TECHNICAL LIBRARY, AMERICAN WATER WORKS ASSOCIATION, 6666 W QUINCY AVENUE, DENVER, COLORADO 80235, TELEPHONE: (303) 794-7711

INSTITUTION NAME: COMMUNICATION SKILLS CORPORATION OF PRENTICE HALL MEDIA.

IRIS ACCESSION NUMBER: EW005684
PUBLICATION DATE: 74

TITLE: HOW TO MEASURE WATER HARDNESS.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *AUDIOVISUAL AIDS; *CALCIUM HARDNESS; FILMSTRIPS; *HARDNESS; *INSTRUCTIONAL MATERIALS; *LABORATORY TECHNIQUES; MAGNESIUM HARDNESS; *MEASUREMENT TECHNIQUES; SKILL DEVELOPMENT; *SLIDE PROGRAMS; *WATER ANALYSIS

DESCRIPTIVE NOTE: 34 SLIDES, COLOR, 35MM, PLUS DUPLICATE FILMSTRIP ACCOMPANIED BY AUDIOTAPE CASSETTE AND STUDY GUIDE. PRICE: $5.00

ABSTRACT: THIS MODULE IS DESIGNED TO ASSIST IN DEVELOPING THE SKILLS NECESSARY TO MEASURE WATER HARDNESS USING THE EDTA TITRATION METHOD. TECHNIQUES TO ACCURATELY MEASURE AND THEN CALCULATE TOTAL HARDNESS, CALCIUM HARDNESS AND THE MAGNESIUM HARDNESS OF A WATER SAMPLE CAN BE MADE.

AVAILABILITY: TECHNICAL LIBRARY, AMERICAN WATER WORKS ASSOCIATION, 6666 W QUINCY AVENUE, DENVER, COLORADO 80235, TELEPHONE: (303) 794-7711

INSTITUTION NAME: COMMUNICATION SKILLS CORPORATION OF PRENTICE HALL MEDIA.

IRIS ACCESSION NUMBER: EW005685

TITLE: HOW TO USE THE METRIC SYSTEM OF LENGTH, VOLUME AND MASS MEASUREMENT.

DESCRIPTOR: *AUDIOVISUAL AIDS; *CONVERSION FACTORS; FILMSTRIPS; *INSTRUCTIONAL MATERIALS; *MEASUREMENT; *METRIC SYSTEM; *MATHEMATICS; *MATHEMATICAL APPLICATIONS; *SLIDE PROGRAMS; *UNITS OF MEASUREMENT

DESCRIPTIVE NOTE: 31 SLIDES, COLOR, 35MM, ACCOMPANIED BY AUDIOTAPE CASSETTE AND WORKBOOK. PRICE: $5.00

ABSTRACT: THIS MODULE INTRODUCES FUNDAMENTAL SI UNITS OF LENGTH, MASS, AND TIME RELATIVE TO COMMON MEASUREMENTS USED IN THE LIFE SCIENCES LABORATORY. DERIVED SI UNITS FOR AREA AND VOLUME ARE CONSIDERED AND MULTIPLES, SUBDIVISIONS, ABBREVIATIONS AND CONVERSION FACTORS ARE REVIEWED.

AVAILABILITY: TECHNICAL LIBRARY, AMERICAN WATER WORKS ASSOCIATION, 6666 W QUINCY AVENUE, DENVER, COLORADO 80235, TELEPHONE: (303) 794-7711

INSTITUTION NAME: COMMUNICATION SKILLS CORPORATION OF PRENTICE HALL MEDIA.

IRIS ACCESSION NUMBER: EW005686

PUBLICATION DATE: 74

TITLE: MEMBRANE FILTER TEST FOR FECAL COLIFORM.

DESCRIPTOR: *AUDIOVISUAL AIDS; *BACTERIA; COLIFORM; *FECAL COLIFORM; *FILMSTRIPS; *INSTRUCTIONAL MATERIALS; *LABORATORY TECHNIQUES; *MEMBRANE FILTER TEST; *SLIDE PROGRAMS; *WATER ANALYSIS

DESCRIPTIVE NOTE: 80 SLIDES, COLOR, 35MM, ACCOMPANIED BY AUDIOTAPE CASSETTE AND VISUAL SCRIPT. PRICE: $5.00

ABSTRACT: THIS MODULE DISCUSSES EQUIPMENT FOR PREPARING MFC BROTH MEDIUM AND PROCEDURES FOR THE MEMBRANE FILTER METHOD FOR DETECTING THE PRESENCE OF FECAL COLIFORM IN WATER. THE PRINTED VISUAL SCRIPT (1) GIVES INSTRUCTION ON COUNTING COLONIES, (2) PROVIDES A COLOR CHART FOR DETECTING FECAL COLIFORMS, AND (3) EXPLAINS HOW TO CONVERT AND REPORT FECAL COLIFORM ORGANISMS.

AVAILABILITY: TECHNICAL LIBRARY, AMERICAN WATER WORKS ASSOCIATION, 6666 W QUINCY AVENUE, DENVER, COLORADO 80235, TELEPHONE: (303) 794-7711

INSTITUTION NAME: MILLIPORE CORPORATION.

IRIS ACCESSION NUMBER: EW005687

PUBLICATION DATE: 74

TITLE: MEMBRANE FILTER TEST FOR TOTAL COLIFORM.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; AUDIOVISUAL AIDS; *BACTERIA; *COLIFORM BACTERIA; *FILMSTRIPS; *INSTRUCTIONAL MATERIALS; *LABORATORY TECHNIQUES; *MEMBRANE FILTER TEST; *SLIDE PROGRAMS; *TOTAL COLIFORM; *WATER ANALYSIS

DESCRIPTIVE NOTE: 80 SLIDES, COLOR, 35MM, ACCOMPANIED BY AUDIOTAPE CASSETTE AND VISUAL SCRIPT. PRICE: $5.00

ABSTRACT: THIS MODULE DISCUSSES EQUIPMENT FOR PREPARING MF-ENDO MEDIUM AND PROCEDURES OF THE MEMBRANE FILTER METHOD FOR DETERMINING THE PRESENCE OF COLIFORM BACTERIA. THE PRINTED VISUAL SCRIPT ALSO DESCRIBES COLONY COUNTING PROCEDURES.

AVAILABILITY: TECHNICAL LIBRARY, AMERICAN WATER WORKS ASSOCIATION, 6666 W QUINCY AVENUE, DENVER, COLORADO 80235, TELEPHONE: (303) 794-7711

INSTITUTION NAME: MILLIPORE CORPORATION.

IRIS ACCESSION NUMBER: EW005688

TITLE: TAPPING FACTS.

DESCRIPTOR: *AUDIOVISUAL AIDS; *CONCRETE PIPE; *INSTRUCTIONAL MATERIALS; *PIPES; *SLIDE PROGRAMS; *TAPPING

DESCRIPTIVE NOTE: 25 SLIDES, COLOR, 35MM, ACCOMPANIED BY PRINTED SCRIPT AND AUDIOTAPE CASSETTE. PRICE: $5.00

ABSTRACT: THIS MODULE PRESENTS A STEP-BY-STEP DESCRIPTION OF THE PROCESS INVOLVED IN TAPPING REINFORCED CONCRETE PIPE. SUITABLE FOR THOSE SELECTING PIPE MATERIALS AS WELL AS THOSE ACTUALLY PERFORMING THE TAP.

AVAILABILITY: TECHNICAL LIBRARY, AMERICAN WATER WORKS ASSOCIATION, 6666 W QUINCY AVENUE, DENVER, COLORADO 80235, TELEPHONE: (303) 794-7711

INSTITUTION NAME: INTERPACE CORPORATION.

IRIS ACCESSION NUMBER: EW005692

PUBLICATION DATE: NOV 80

TITLE: ANALYZING FOR TRACE CHEMICALS IN WATER: A MANAGER'S GUIDE.

PERSONAL AUTHOR: CLARK, DOUGLAS W.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICAL ANALYSIS; INSTRUMENTATION; *LABORATORY TECHNIQUES; *MONITORING; *MANAGERS; PUBLIC HEALTH; *TRACE CHEMICALS; TRACE METALS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 85-89P.

ABSTRACT: SUMMARIZED ARE THE MOST WIDELY USED TECHNIQUES FOR ANALYZING TRACE CHEMICALS IN WATER. DISCUSSED ARE THE STRENGTHS AND WEAKNESS OF EACH METHOD. THE VARIOUS TECHNIQUES DISCUSSED INCLUDE ATOMIC ABSORPTION

SPECTROPHOTOMETRY, POLAROGRAPHY, NEUTRON ACTIVATION ANALYSIS, GAS CHROMATOGRAPHY, MASS SPECTOMETEY, AND INFRARED SPECTOSCOPY

AVAILABILITY: PUBLIC WORKS, V111 N11

IRIS ACCESSION NUMBER: EW005693

PUBLICATION DATE: MAY 79

TITLE: HANDBOOK OF PVC PIPE, DESIGN AND CONSTRUCTION.

DESCRIPTOR: *CONSTRUCTION; *DESIGN; ENGINEERING; HYDRAULICS; MUNICIPALITIES; *POLYVINYLCHLORIDE PIPE; *PLASTIC PIPE; *PIPES; SEWERS; *WATER MAINS; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: PRICE: $20.00

ABSTRACT: THIS HANDBOOK CONTAINS ENGINEERING AND CONSTRUCTION DATA AND RECOMMENDATIONS APPLICABLE TO THE DESIGN AND CONSTRUCTION OF UNDERGROUND PVC PIPING SYSTEMS IN PRESSURE AND NON-PRESSURE APPLICATIONS. EMPHASIS IS ON MUNICIPAL WATER MAINS, POTABLE WATER DISTRIBUTION, AND SANITARY SEWER SYSTEMS.

AVAILABILITY: UNI-BELL PLASTIC PIPE ASSOCIATION, 2655 VILLA CREEK DRIVE, SUITE 164, DALLAS, TX 75234

IRIS ACCESSION NUMBER: EW005694

PUBLICATION DATE: 78

TITLE: MEASUREMENT OF DISSOLVED OXYGEN.

PERSONAL AUTHOR: HITCHMAN, MICHAEL L.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *DISSOLVED OXYGEN; ELECTROCHEMICAL MEASUREMENT; *LABORATORY PROCEDURES; *MEASUREMENT; METHODOLOGIES; *MONITORING; POLAROGRAPHIC DETECTORS; *QUANTITATIVE ASSAY; VOLTAMMETRY

DESCRIPTIVE NOTE: 255P. PRICE: $25.00 PLUS $1.00 POSTAGE AND HANDLING

ABSTRACT: THIS BOOK DEALS WITH THE METHODOLOGIES AND TECHNIQUES OF MEASURING DISSOLVED OXYGEN. THE AUTHOR COVERS THE THERMODYNAMIC ASPECTS OF DISSOLVED OXYGEN, THE PRINCIPLES OF VOLTAMMETRY, THE USE OF POLAROGRAPHIC DETECTORS, ELECTROCHEMICAL MEASUREMENT, AND NON ELECTROCHEMICAL MEASUREMENT TECHNIQUES.

AVAILABILITY: ORBISPHERE LABORATORIES, 287 LACKAWANNA AVENUE, WEST PATERSON, NJ 07424

IRIS ACCESSION NUMBER: EW005695

PUBLICATION DATE: 79

TITLE: ENVIRONMENTAL LAW HANDBOOK, SIXTH EDITION.

DESCRIPTOR: ENVIRONMENTAL IMPACT STATEMENTS; *ENVIRONMENTAL LAW; ENVIRONMENTAL POLICY ACT; *ENVIRONMENT; GOVERNMENT ROLE; *HANDBOOKS; HAZARDOUS WASTES; *LAW; LAND USE; *LEGISLATION; NOISE; PESTICIDES; POLLUTION CONTROL; *REGULATIONS; RESOURCE CONSERVATION AND RECOVERY ACT; SOLID WASTES; TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 368P. PRICE: $19.50

ABSTRACT: THE PRIMARY OBJECTIVE OF THIS BOOK IS TO SATISFY, IN PART, THE NEED FOR CURRENT INFORMATION ON ENVIRONMENTAL LAWS AND REGULATIONS TO THOSE CONCERNED WITH PROTECTING PUBLIC HEALTH AND THE ENVIRONMENT. CHAPTERS INCLUDE: (1) FUNDAMENTALS OF ENVIRONMENTAL LAW, (2) NATIONAL ENVIRONMENTAL POLICY ACT, (3) WATER POLLUTION CONTROL, (4) AIR POLLUTION CONTROL, (5) LAND USE, MAJOR ISSUES IN THE CONTROL OF INDUSTRIAL DEVELOPMENT, (6) FEDERAL REGULATION OF PESTICIDES, (7) TOXIC SUBSTANCES, (8) NOISE, AND (9) RESOURCE CONSERVATION AND RECOVERY ACT: SOLID AND HAZARDOUS WASTES.

AVAILABILITY: GOVERNMENT INSTITUTES, INC., P.O. BOX 5918, WASHINGTON, D.C. 20014

INSTITUTION NAME: GOVERNMENT INSTITUTES, INC.

IRIS ACCESSION NUMBER: EW005697

PUBLICATION DATE: AUG 80

TITLE: 1979 BIBLIOGRAPHY OF SMALL WASTEWATER FLOWS.

DESCRIPTOR: ALTERNATIVE TECHNOLOGY; *BIBLIOGRAPHY; COLLECTION SYSTEMS; DISPOSAL SYSTEMS; GRAVITY SEWERS; INNOVATIVE SYSTEMS; ON-SITE SYSTEMS; PRESSURE SEWERS; *SMALL FLOWS; SMALL COMMUNITIES; SEPTIC TANKS; VACUUM SEWERS; *WASTEWATER; WASTEWATER TREATMENT SYSTEMS

DESCRIPTIVE NOTE: 142P. PRICE: $7.00

ABSTRACT: THIS PUBLICATION CONTAINS ABSTRACTS AND INDEXES OF ALTERNATIVE TREATMENT AND COLLECTION SYSTEMS FROM DOMESTIC AND FOREIGN LITERATURE AS SEARCHED BY ENVIRO CONTROL, INC., AND THE PROFESSIONAL STAFF OF THE ENVIRONMENTAL PROTECTION AGENCY SMALL WASTEWATER FLOWS CLEARINGHOUSE. BOTH TECHNICAL AND NON-TECHNICAL REPORTS AND INFORMATION ARE INCLUDED. THE SUBJECT MATTER RESEARCHED INCLUDES INNOVATIVE AND ALTERNATIVE WASTEWATER TREATMENT SYSTEMS FOR SMALL COMMUNITIES, THE SPARSELY POPULATED AREAS OF LARGER COMMUNITIES AND INDIVIDUAL ON-SITE SYSTEMS.

AVAILABILITY: WEST VIRGINIA UNIVERSITY, WVU BOOKSTORE, MOUNTAINLAIR, MORGANTOWN, WV 26506

INSTITUTION NAME: PROFESSIONAL STAFF, EPA SMALL WASTEWATER FLOWS CLEARINGHOUSE.

IRIS ACCESSION NUMBER: EW005698

PUBLICATION DATE: JUN 80

TITLE: ENVIRONMENTAL GLOSSARY.

DESCRIPTOR: ABBREVIATIONS; DEFINITIONS; *ENVIRONMENT; ENVIRONMENTAL REGULATIONS; FEDERAL STATUTES; FEDERAL REGULATIONS; *GLOSSARIES; *POLLUTION CONTROL; *TERMINOLOGY

DESCRIPTIVE NOTE: 200P. PRICE: $19.50

ABSTRACT: THE 1970'S PRODUCED MANY NEW FEDERAL STATUTES AND REGULATIONS CONTROLLING POLLUTION IN THE UNITED STATES. WHILE MANY REGULATIONS CREATED NEW TERMINOLOGY TO IMPLEMENT THE STATUTORY AND REGULATORY PROVISIONS, MANY COMMON TERMS AND PREVIOUSLY-USED DEFINITIONS ASSUMED NEW MEANINGS. THIS GLOSSARY HAS BEEN PREPARED TO COLLECT THESE DEFINITIONS AND ABBREVIATIONS IN ONE LOCATION AS AN ADDITIONAL RESOURCE FOR PERSONS TO WORK THEIR WAY THROUGH THE MAZE OF ENVIORNMENTAL REGULATIONS.

AVAILABILITY: GOVERNMENT INSTITUTES, INC., P. O. BOX 5918, WASHINGTON, DC 20014

IRIS ACCESSION NUMBER: EW005699

PUBLICATION DATE: APR 78

TITLE: STEVENS WATER RESOURCES DATA BOOK.

DESCRIPTOR: EQUIPMENT; HYDROLOGY; *INSTRUCTIONAL MATERIALS; MANHOLES; *MEASUREMENT; *MEASUREMENT INSTRUMENTS; *MEASUREMENT TECHNIQUES; *MONITORING; TABLES (DATA); *WATER RESOURCES; WELLS

DESCRIPTIVE NOTE: 160P. PRICE: $5.00

ABSTRACT: THIS BOOKLET PROVIDES BASIC, FUNDAMENTAL INFORMATION ON VARIOUS ASPECTS OF WATER RESOURCES EQUIPMENT AND OPERATION. MOST OF THE MATERIAL RELATES TO WATER MEASUREMENT WITH EMPHASIS ON WATER POLLUTION CONTROL, FLOW MEASUREMENT, AND ANALYSIS OF OPEN CHANNEL FLOWS. CHAPTERS INCLUDE: THE HYDROLOGIC CYCLE, WATER LEVEL MEASUREMENT METHODS, FLOAT WELLS AND INSTRUMENT SHELTERS, OPEN CHANNEL FLOW MEASUREMENT, MEASURING FLOWS IN MANHOLES, WELL MEASUREMENT, TELEMETERING, ERRORS IN FLOAT OPERATED DEVICES, WEIRS AND FLUME TABLES, METRIC SYSTEM TABLES, AND HANDY CONVERSION TABLES.

AVAILABILITY: LEUPOLD & STEVENS, INC., P.O. BOX 688, BEAVERTON, OR 97075

IRIS ACCESSION NUMBER: EW005700

PUBLICATION DATE: 76

TITLE: CITIZENS AND THE ENVIRONMENT, CASE STUDIES IN POPULAR ACTION.

PERSONAL AUTHOR: CALDWELL, LYNTON K.; AND OTHERS

DESCRIPTOR: *CASE STUDIES; *CITIZEN PARTICIPATION; *CITIZEN ROLE; CONSERVATION (ENVIRONMENT); DECISION MAKING; ENVIRONMENTAL EDUCATION; *ENVIRONMENTAL MANAGEMENT; *ENVIRONMENTAL PROTECTION; GOVERNMENT ROLE; LAND MANAGEMENT; LEGISLATION; POLITICAL SCIENCE; *PUBLIC PARTICIPATION

DESCRIPTIVE NOTE: 480P. PRICE: $6.95

ABSTRACT: THIS BOOK DESCRIBES THE WAYS IN WHICH CITIZENS HAVE ORGANIZED AND ACTED IN RESPONSE TO PERCEIVED THREATS TO THEIR ENVIRONMENT. CASE STUDIES HAVE BEEN SELECTED TO ILLUSTRATE THE WIDE VARIETY OF ISSUES IN WHICH CITIZENS HAVE FELT IMPELLED TO ORGANIZE TO DEFEND INTERESTS WHICH WERE THREATENED BY AGENCIES OF GOVERNMENT OR CORPORATE ENTERPRISE. CHAPTERS INCLUDE: SECTION I-CRITICAL AREAS OF THE NATURAL ENVIRONMENT: (1) LAND USE, (2) COASTAL ZONE, (3) INLAND WATERS, (4) AIR QUALITY AND WEATHER MODIFICATION, AND (5) NATURAL AREAS AND WILDLIFE. SECTION II-CRITICAL ASPECTS OF MAN-ENVIRONMENT RELATIONSHIPS: (6) ENERGY, (7) THE ECONOMY AND GROWTH, (8) ENVIRONMENTAL HEALTH, (9) QUALITY OF URBAN LIFE, AND (10) INSTITUTIONAL BEHAVIOR.

AVAILABILITY: INDIANA UNIVERSITY PRESS, 10TH & MORTON STREETS, BLOOMINGTON, IN 47405

IRIS ACCESSION NUMBER: EW005703

PUBLICATION DATE: APR 80

TITLE: ENVIRONMENTAL STATUTES, 1980 EDITION.

DESCRIPTOR: AIR POLLUTION CONTROL; *ENVIRONMENT; ENVIRONMENTAL PROTECTION; *LEGISLATION; NOISE POLLUTION CONTROL; OCCUPATIONAL SAFETY AND HEALTH ACT; POLLUTION CONTROL; *REGULATIONS; RESOURCE RECOVERY; SAFE DRINKING WATER ACT; SAFETY; *STATUTES; TOXIC SUBSTANCES; WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 552P. PRICE: $12.95

ABSTRACT: THIS DOCUMENT CONTAINS THE ENTIRE CONTENTS OF TEN MAJOR ENVIRONMENT STATUTES. INCLUDED ARE: THE CLEAN AIR ACT (AND AMENDMENTS), THE CLEAN AIR ACT AMENDMENT OF 1977 (WHICH DID NOT AMEND THE PREVIOUS ACT), FEDERAL WATER POLLUTION CONTROL ACT (AND AMENDMENTS), NATIONAL ENVIRONMENTAL POLICY ACT OF 1969 (AND AMENDMENTS), NOISE CONTROL ACT OF 1972, AMENDMENTS TO THE NOISE CONTROL ACT (QUIET COMMUNITIES ACT OF 1978), OCCUPATIONAL SAFETY AND HEALTH ACT, RESOURCE CONSERVATION AND RECOVERY ACT (AND AMENDMENTS), SAFE DRINKING WATER ACT, AND THE TOXIC SUBSTANCES CONTROL ACT.

AVAILABILITY: GOVERNMENT INSTITUTES, P.O. BOX 5918, WASHINGTON, DC 20014

IRIS ACCESSION NUMBER: EW005704

PUBLICATION DATE: JUL 80

TITLE: CONTAMINANTS AND SEDIMENTS, VOLUME 1, FATE AND TRANSPORT, CASE STUDIES, MODELING, TOXICITY.

PERSONAL AUTHOR: BAKER, ROBERT A.

DESCRIPTOR: CASE STUDIES; *CONTAMINANTS; MODELING; *SEDIMENTS; *TRANSPORT; TOXICITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 650P. PRICE: $39.95-SINGLE COPY

ABSTRACT: THE COLLECTED SYMPOSIUM PAPERS IN THIS VOLUME DEAL WITH THE PROBLEMS OF CONTAMINANTS OF SEDIMENTS IN AQUEOUS SYSTEMS. TOPICS COVERED INCLUDE THE FATE AND TRANSPORT OF CONTAMINANTS, MODELING AND TOXICITY. NUMEROUS CASE STUDIES ARE PRESENTED.

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS, INC., 40 BUTTERWORTH PUBLISHERS, INC., 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW005705

PUBLICATION DATE: AUG 80

TITLE: CONTAMINANTS AND SEDIMENTS, VOLUME 2, ANALYSIS, CHEMISTRY, BIOLOGY.

PERSONAL AUTHOR: BAKER, ROBERT A.

DESCRIPTOR: AQUEOUS SYSTEMS; ANALYTICAL TECHNIQUES; *CONTAMINANTS; *CHEMICAL REACTIONS; *INSTRUMENTATION; *SEDIMENTS; *TOXICITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 650P. PRICE: $39.95-VOLUME 2 ONLY, $69.95-2 VOLUME SET.

ABSTRACT: THE COLLECTED SYMPOSIUM PAPERS IN THIS VOLUME DEAL WITH THE ANALYTICAL, CHEMICAL AND BIOLOGICAL ASPECTS OF CONTAMINANTS OR SEDIMENTS IN AQUEOUS SYSTEMS. TOPICS COVERED INCLUDE: INSTRUMENTATION, CHEMICAL REACTIONS, CHEMICAL MECHANISMS, ADSORPTION, AND BIOLOGICAL FACTORS WHICH EFFECT THE FATE AND TRANSPORT OF CONTAMINANTS OR SEDIMENTS.

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS, INC., 40 BUTTERWORTH PUBLISHERS, INC., 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW005706

PUBLICATION DATE: DEC 78

TITLE: THE NATION'S WATER RESOURCES 1975-2000, VOLUME 2: WATER QUANITY, QUALITY, AND RELATED LAND CONSIDERATIONS.

DESCRIPTOR: CASE STUDIES; *FEDERAL LEGISLATION; LEGISLATION; *NATIONAL ASSESSMENT; PLANNING; PROJECTIONS; *PROBLEM ANALYSIS; RESEARCH; WATER SUPPLY; WATER USE; *WATER CONSERVATION; *WATER MANAGEMENT; *WATER RESOURCES; *WATER RESOURCES COUNCIL; *WATER POLICY

DESCRIPTIVE NOTE: 530P. PRICE: $11.00

ABSTRACT: THIS VOLUME CONTAINS DATA FOR WATER QUANITY, QUALITY AND RELATED LAND CONSIDERATIONS COLLECTED FOR THE SECOND NATIONAL WATER ASSESSMENT PREPARED UNDER THE AUTHORITY OF THE WATER RESOURCES PLANNING ACT OF 1965. THE INFORMATION COVERED INCLUDES WATER MANAGEMENT PROBLEM PROFILES, WATER USES, WATER SUPPLY, WATER QUALITY, AND SYNOPSES OF THE WATER RESOURCES REGIONS.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, US GOVERNMENT PRINTING OFFICE, WASHINGTON, DC 20402

INSTITUTION NAME: U.S. WATER RESOURCES COUNCIL.

IRIS ACCESSION NUMBER: EW005707

PUBLICATION DATE: DEC 78

TITLE: THE NATION'S WATER RESOURCES 1975-2000, VOLUME 3: ANALYTICAL DATA SUMMARY.

DESCRIPTOR: FEDERAL LEGISLATION; HYDROLOGY; *LEGISLATION; *NATIONAL ASSESSMENT; *PLANNING; PROJECTIONS; RESEARCH; WATER SUPPLY; WATER USE; *WATER CONSERVATION; *WATER MANAGEMENT; *WATER RESOURCES; *WATER RESOURCE COUNCIL; *WATER POLICY

DESCRIPTIVE NOTE: 89P. PRICE: $4.00

ABSTRACT: THIS VOLUME CONTAINS BASELINE AND PROJECTED INFORMATION DEVELOPED FOR THE SECOND NATIONAL WATER ASSESSMENT UNDER THE DIRECTION OF THE U.S. WATER RESOURCES COUNCIL TO MEET THE REQUIREMENTS OF THE WATER RESOURCES PLANNING ACT OF 1965. IT INCLUDED NATIONAL AND REGIONAL INFORMATION FOR SOCIAL, ECONOMIC, ENVIORNMENTAL, WATER SUPPLY, AND WATER USE. INFORMATION FOR SUBREGIONS IS CONTAINED IN THE FIVE APPENDIXES.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, US GOVERNMENT PRINTING OFFICE, WASHINGTON, DC 20402

INSTITUTION NAME: U.S. WATER RESOURCES COUNCIL.

IRIS ACCESSION NUMBER: EW005708

PUBLICATION DATE: DEC 78

TITLE: THE NATION'S WATER RESOURCES 1975-2000, VOLUME 3: ANALYTICAL DATA, APPENDIX I, SOCIAL, ECONOMIC AND ENVIRONMENTAL DATA.

DESCRIPTOR: *ENVIRONMENTAL FACTORS; *ECONOMICS; FEDERAL LEGISLATION; *HYDROLOGY; *MODELS; *NATIONAL ASSESSMENT; *PLANNING; PROJECTIONS; RESEARCH; *SOCIAL FACTORS; WATER SUPPLY; WATER USE; *WATER CONSERVATION; *WATER MANAGEMENT;

*WATER RESOURCES; *WATER RESOURCE COUNCIL; *WATER POLICY

DESCRIPTIVE NOTE: 158P. PRICE: $4.75

ABSTRACT: THIS APPENDIX CONTAINS BASELINE AND PROJECTED INFORMATION DEVELOPED FOR THE SECOND NATIONAL WATER ASSESSMENT UNDER THE DIRECTION OF THE U.S. WATER RESOURCES COUNCIL TO MEET THE REQUIREMENTS OF THE WATER RESOURCES PLANNING ACT OF 1965. IT INCLUDES SOCIAL, ECONOMIC, ENVIRONMENTAL, AND OTHER WATER-RELATED DATA CONSISTENT WITH THE WATER-USE AND WATER-SUPPLY, INFORMATION FOUND IN APPENDIXES II, III, AND IV. THIS APPENDIX PRESENTS TWO ALTERNATIVE VIEWS. ONE VIEW, THE NATIONAL FUTURE (NF), REPRESENTS THE FEDERAL VIEWPOINT. THE OTHER VIEW, THE STATE-REGIONAL FUTURE (SRF), REPRESENTS THE REGIONAL SPONSOR AND STATE VIEWPOINT. THE NF INFORMATION ATTEMPTS TO BE NATIONALLY CONSISTENT IN ITS ASSUMPTIONS OF GROWTH AND CHANGE, WHEREAS THE SRF INFORMATION REFLECTS A MORE LOCALIZED, BUT OFTEN MORE ACCURATE VIEW OF REGIONAL AND SUBREGIONAL CONDITIONS.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON, DC 20402

INSTITUTION NAME: U.S. WATER RESOURCES COUNCIL.

IRIS ACCESSION NUMBER: EW005709

PUBLICATION DATE: DEC 78

TITLE: THE NATION'S WATER RESOURCES 1975-2000, VOLUME 3: ANALYTICAL DATA, APPENDIX II, ANNUAL WATER SUPPLY AND USE ANALYSIS.

DESCRIPTOR: *BASELINE DATA; DATA ANALYSIS; *EVALUATION; FEDERAL LEGISLATION; HYDROLOGY; *PLANNING; *PREDICTION; *POLICY; RESEARCH; WATER SUPPLY; WATER CONSERVATION; *WATER MANAGEMENT; *WATER RESOURCES

DESCRIPTIVE NOTE: 174P. PRICE: $5.00

ABSTRACT: THIS APPENDIX CONTAINS BASELINE AND PROJECTED INFORMATION DEVELOPED FOR THE SECOND NATIONAL WATER ASSESSMENT UNDER THE DIRECTION OF THE U.S. WATER RESOURCES COUNCIL TO FULFILL THE REQUIREMENTS OF THE WATER RESOURCES PLANNING ACT OF 1965. IT INCLUDES ANNUAL BASELINE WATER-SUPPLY DATA AND BASELINE AND PROJECTED WATER-WITHDRAWL AND WATER-CONSUMPTION DATA. THE WATER ADEQUACY ANALYSIS AND NATURAL WATER SUPPLY ANALYSIS PROVIDE ESTIMATES OF THE ADEQUACY OF FUTURE FRESH-WATER SUPPLIES TO MEET BOTH OFFSTREAM AND INSTREAM NEEDS.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON, DC 20402

INSTITUTION NAME: U.S. WATER RESOURCES COUNCIL.

IRIS ACCESSION NUMBER: EW005710

PUBLICATION DATE: DEC 78

TITLE: THE NATION'S WATER RESOURCES 1975-2000, VOLUME 3: ANALYTICAL DATA APPENDIX III, MONTHLY WATER SUPPLY AND USE ANALYSIS.

DESCRIPTOR: FEDERAL LEGISLATION; *HYDROLOGY; *LEGISLATION; *NATIONAL ASSESSMENT; *PLANNING; PROJECTIONS; RESEARCH; WATER SUPPLY; WATER USE; *WATER CONSERVATION; *WATER MANAGEMENT; *WATER RESOURCES; *WATER RESOURCES COUNCIL; *WATER POLICY

DESCRIPTIVE NOTE: 302P. PRICE: $7.00

ABSTRACT: THIS APPENDIX CONTAINS BASELINE AND PROJECTED INFORMATION DEVELOPED FOR THE SECOND NATIONAL WATER ASSESSMENT UNDER THE DIRECTION OF THE U.S. WATER RESOURCES COUNCIL TO MEET THE REQUIREMENTS OF THE WATER RESOURCES PLANNING ACT OF 1965. IT INCLUDES MONTHLY BASELINE WATER-SUPPLY DATA AND BASELINE AND PROJECTED WATER-WITHDRAWL AND WATER CONSUMPTION DATA. THE WATER ADEQUACY ANALYSIS PROVIDES MONTHLY ESTIMATES OF THE ADEQUACY OF FUTURE FRESH-WATER SUPPLIES TO MEET BOTH OFFSTREAM AND INSTREAM NEEDS.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON, DC 20402

INSTITUTION NAME: U.S. WATER RESOURCES COUNCIL.

IRIS ACCESSION NUMBER: EW005711

PUBLICATION DATE: DEC 78

TITLE: THE NATION'S WATER RESOURCES 1975-2000, VOLUME 3: ANALYTICAL DATA APPENDIX IV, DRY CONDITIONS WATER SUPPLY AND USE ANALYSIS.

DESCRIPTOR: *DROUGHTS; FEDERAL LEGISLATION; *HYDROLOGY; *LEGISLATION; *NATIONAL ASSESSMENT; *PLANNING; PROJECTIONS; RESEARCH; WATER SUPPLY; WATER USE; *WATER CONSERVATION; *WATER MANAGEMENT; *WATER RESOURCES; *WATER RESOURCES COUNCIL; *WATER POLICY

DESCRIPTIVE NOTE: 337P. PRICE: $7.00

ABSTRACT: THIS APPENDIX CONTAINS BASELINE AND PROJECTED INFORMATION DEVELOPED FOR THE SECOND NATIONAL WATER ASSESSMENT WHICH WAS CARRIED OUT UNDER THE DIRECTION OF THE U.S. WATER RESOURCES COUNCIL TO MEET THE REQUIREMENTS OF THE WATER RESOURCES PLANNING ACT OF 1965. IT INCLUDES BOTH ANNUAL AND MONTHLY DRY-CONDITION NEEDS FOR WATER WITHRAWLS AND CONSUMPTION. THE DRY-CONDITION WATER ADEQUACY ANALYSIS PROVIDES BOTH ANNUAL AND MONTHLY ESTIMATES OF THE ADEQUACY OF FUTURE FRESH-WATER SUPPLIES TO MEET BOTH OFFSTREAM AND INSTREAM NEEDS UNDER A MODERATE DROUGHT CONDITION WHICH OCCURS, ON THE AVERAGE, ONCE IN FIVE YEARS.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON, DC 20402

INSTITUTION NAME: U.S. WATER RESOURCES COUNCIL.

IRIS ACCESSION NUMBER: EW005712

PUBLICATION DATE: DEC 78

TITLE: THE NATION'S WATER RESOURCES 1975-2000, VOLUME 3: ANALYTICAL DATA, APPENDIX V, STREAMFLOW CONDITIONS.

DESCRIPTOR: FEDERAL LEGISLATION; *HYDROLOGY; INSTRUMENTATION; *NATIONAL ASSESSMENT; PLANNING; PROJECTIONS; RESEARCH; *STREAMS; *STREAMFLOW; WATER SUPPLY; WATER USE; *WATER CONSERVATION; *WATER MANAGEMENT; *WATER RESOURCES; *WATER RESOURCES COUNCIL; *WATER POLICY

DESCRIPTIVE NOTE: 276P. PRICE: $6.00

ABSTRACT: THIS APPENDIX CONTAINS DETAILED BACKGROUND INFORMATION ON THE DEVIATION OF THE BASELINE STREAMFLOW INFORMATION. THIS INFORMATION WAS COLLECTED FOR THE SECOND NATIONAL WATER ASSESSMENT BY THE U.S. WATER RESOURCES COUNCIL TO MEET THE REQUIREMENTS OF THE WATER RESOURCES PLANNING ACT OF 1965. IT CONTAINS A DESCRIPTION OF STREAMFLOW INSTRUMENTS USED, CORRECTION FACTORS APPLIED, PERIODS OF RECORD, AND EXTREME FLOWS OF RECORD FOR EACH SUBREGION. ALSO INCLUDED IS THE STATE REGIONAL FUTURE ESTIMATE OF AVERAGE STREAM FLOW CONDITIONS.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT PRINTING OFFICE WASHINGTON, DC 20402

INSTITUTION NAME: U.S. WATER RESOURCES COUNCIL.

IRIS ACCESSION NUMBER: EW005713

PUBLICATION DATE: 80

TITLE: INDIVIDUAL ONSITE WASTEWATER SYSTEMS.

PERSONAL AUTHOR: MCCELLAND, NINA I.

DESCRIPTOR: CASE STUDIES; *CONFERENCE REPORTS; *DESIGN; *FACILITIES; *MANAGEMENT; *ONSITE DISPOSAL; *ONSITE WASTEWATER SYSTEMS; ONSITE WASTEWATER TREATMENT; OPERATIONS (WASTEWATER); RURAL AREAS; SEWAGE; SOILS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 522P. PRICE: $30.00

ABSTRACT: THIS BOOK CONTAINS A COMPILATION OF 40 PAPERS PRESENTED AT THE SIXTH NATIONAL CONFERENCE (1979) ON INDIVIDUAL ONSITE WASTEWATER SYSTEMS. THIS CONFERENCE HAS PROVIDED A FORUM FOR COMMUNICATION BETWEEN PROFESSIONALS AND USERS CONCERNED WITH EFFECTIVE UTILIZATION OF ONSITE WASTEWATER SYSTEMS. THE KINDS OF PROBLEMS FOR WHICH ONSITE TREATMENT AND DISPOSAL SHOULD APPROPRIATELY BE CONSIDERED, SELECTION CRITERIA, MANAGEMENT STRATEGIES, AND TECHNIQUES FOR REJUVENATING FAILED SYSTEMS ARE DESCRIBED IN THESE PROCEEDINGS.

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS, INC., C/O BUTTERWORTH PUBLISHERS, INC., 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW005715

PUBLICATION DATE: 80

TITLE: MANUAL FOR WATERWORKS OPERATORS.

DESCRIPTOR: CHEMISTRY; DISINFECTION; ELECTRICITY; FACILITIES; HYDRAULICS; INSTALLATION; *INSTRUCTIONAL MATERIALS; LABORATORY PROCEDURES; MAINTENANCE; *MANAGEMENT; *MANUALS; MATHEMATICS; MICROBIOLOGY; *OPERATIONS (WATER); SAFETY; WATER DISTRIBUTION; *WATER TREATMENT; *WATER UTILITIES

DESCRIPTIVE NOTE: 500P.

ABSTRACT: THIS COMPREHENSIVE MANUAL PROVIDES THE NECESSARY INFORMATION FOR OPERATIONS, MAINTENANCE, AND MANAGEMENT OF WATERWORK PROJECTS. CHAPTERS INCLUDE: THE IMPORTANCE AND SOURCES OF WATER, MATHEMATICS, BASIC HYDRAULICS, CHEMISTRY, MICROBIOLOGY, BASIC ELECTRICITY, CONTRACT DOCUMENTS FOR INTERPRETATION OF CONSTRUCTION DRAWING AND SPECIFICATION, AERATION, COAGULATION-SEDIMENTATION, FILTRATION, DISINFECTION, IRON AND MANGANESE REMOVAL, SOFTENING AND STABILIZATION, TASTE AND ODOR, FLUORIDATION, EMERGENCY TREATMENT, BASIC MATERIALS, INSTALLATION-TRANSMISSION LINES, INSTALLATION-DISTRIBUTION, INSTALLATION-SERVICES, PUMPING, THE STORAGE OF POTABLE WATER, METERING, INSTRUMENTATION, DISTRIBUTION SYSTEM MAPS AND RECORDS, CROSS-CONNECTIONS, REPAIR AND MAINTENANCE, FIRE PROTECTION, CORROSION CONTROL, FINANCING, PUBLIC RELATIONS, SAFETY IN WATER UTILITIES, MANAGEMENT AND SUPERVISION, AND LONG RANGE PLANNING FOR WATER UTILITIES.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION, SOUTHWEST 8 TEXAS WATER WORKS JOURNAL, P.O. BOX 769, TEMPLE, TX 76501

INSTITUTION NAME: SOUTHWEST SECTION, AMERICAN WATER WORKS ASSOCIATION.

IRIS ACCESSION NUMBER: EW005725

PUBLICATION DATE: 79

TITLE: TOXIC CHEMICAL AND EXPLOSIVES FACILITIES.

PERSONAL AUTHOR: SCOTT, RALPH A., JR.

DESCRIPTOR: *COST EFFECTIVENESS; *CARCINOGENS; *DESIGN; *EXPLOSIVE FACILITIES; *ENGINEERING; *HAZARDOUS MATERIALS; *REGULATIONS; *SYMPOSIA; *TOXIC SUBSTANCES; TOXICOLOGY

DESCRIPTIVE NOTE: 352P. PRICE: *32.00

ABSTRACT: THIS VOLUME IS BASED ON A SYMPOSIUM SPONSORED BY THE DIVISION OF CHEMICAL HEALTH AND SAFETY OF THE AMERICAN CHEMICAL SOCIETY. IT CONTAINS INFORMATION ON THE LATEST

MEANS FOR CLASSIFICATION, MEASUREMENT, AND CONTROL OF HAZARDOUS EXPLOSIVES AND TOXIC SUBSTANCES, INCLUDING THE MULTILEVEL REGULATORY CONTROLS WHICH HAVE BEEN ESTABLISHED ACCORDING TO THE AMOUNT OF TOXICOLOGICAL INFORMATION AVAILABLE. METHODS FOR DEVELOPING AND SUBSEQUENTLY IMPLEMENTING RELEVANT ENGINEERING DESIGN CRITERIA THAT ARE MOST EFFICIENT AND COST EFFECTIVE FOR BOTH FACILITIES ARE ALSO PRESENTED.

AVAILABILITY: AMERICAN CHEMICAL SOCIETY, SPECIAL ISSUES SALES, 1155 SIXTEENTH ST., N.W., WASHINGTON, DC 20036

IRIS ACCESSION NUMBER: EW005726

PUBLICATION DATE: 78

TITLE: SOLID WASTES AND RESIDUES.

PERSONAL AUTHOR: JONES. JERRY L.; RADDING, SHIRLEY B.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *BIOLOGICAL SCREENING; *CHEMICALS; *CARCINOGENICITY; ENVIORNMENT; *MONITORING; *MUTAGENICITY; *SYMPOSIA; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 421P. PRICE: $30.75

ABSTRACT: THIS VOLUME IS BASED ON A SYMPOSIUM SPONSORED BY THE DIVISION OF INDUSTRIAL AND ENGINEERING CHEMISTRY OF THE AMERICAN CHEMICAL SOCIETY. IT CONTAINS DESCRIPTIONS OF THE MOST WIDELY RECOGNIZED STATE-OF-THE-ART TECHNIQUES FOR THE RAPID BIOLOGICAL SCREENING OF CHEMICAL SUBSTANCES FOR POTENTIAL MUTAGENICITY AND CARCINOGENICITY, AND SURVEYS PRESENT INSTRUMENTAL ANALYTICAL TECHNIQUES FOR MONITORING TOXIC SUBSTANCES.

AVAILABILITY: AMERICAN CHEMICAL SOCIETY, SPECIAL ISSUES SALES, 1155 SIXTEENTH ST., N.W., WASHINGTON, DC 20036

IRIS ACCESSION NUMBER: EW005729

PUBLICATION DATE: JUL 77

TITLE: CASCADE WATER REUSE.

PERSONAL AUTHOR: SCHMIDT, CURTIS J.; AND OTHERS

DESCRIPTOR: *COST EFFECTIVENESS; FACILITIES; *MILITARY FACILITIES; *MODELS; *RECYCLING; *WASTEWATER COLLECTION; *WATER RESOURCES; *WATER CONSERVATION; WATER QUALITY; *WASTEWATER TREATMENT; *WATER SUPPLY

DESCRIPTIVE NOTE: 84P. PRICE: $8.00

ABSTRACT: THE WATER REUSE MODEL DESCRIBED IN THIS REPORT WAS DEVELOPED TO ASSIST AIR FORCE PERSONNEL IN REUSING WASTEWATER ON AIR FORCE BASES. THE MODEL AIDS IN SELECTING THE MOST COST EFFECTIVE NETWORK FOR WASTEWATER COLLECTION, TREATMENT AND REUSE IN BASE ACTIVITIES

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW005730

PUBLICATION DATE: 79

TITLE: GENERAL COUNSEL OPINIONS, VOLUMES 1 AND 2.

DESCRIPTOR: AIR POLLUTION; *ENVIRONMENTAL PROTECTION; *ENVIRONMENTAL LEGISLATION; *ENVIRONMENTAL PROTECTION AGENCY; *FEDERAL REGULATIONS; *JUDICIAL DECISIONS; *LAW; *LEGAL OPINIONS; LANDUSE; NOISE; PESTICIDES; REGULATIONS; RADIATION; SOLID WASTES; WATER POLLUTION

DESCRIPTIVE NOTE: 1992P. PRICE: $150.00

ABSTRACT: THIS PUBLICATION CONTAINS THE LEGAL OPINIONS OF THE UNITED STATES ENVIORNMENTAL PROTECTION AGENCY (EPA) GENERAL COUNSEL AND IS DESIGNED TO BE A REFERENCE WORK TO GUIDE THE USER THROUGH THIS COMPLEX AREA OF LAW. THE OPINIONS OF THE GENERAL COUNSEL REPRESENT INTERPRETATIONS OF EPA'S STATUTES AND REGULATIONS AT THE TIME THE OPINIONS WERE WRITTEN. SUBSEQUENT CHANGES IN THE STATUTES AND REGULATIONS AND SUBSEQUENT JUDICIAL DISCUSSIONS HAVE SUPERSEDED SOME OF THESE OPINIONS, IN WHOLE OR IN PART. IN MANY INSTANCES, A NOTE INDICATING THE SUBSEQUENT DEVELOPMENT HAS BEEN INCLUDED.

AVAILABILITY: NILS PUBLISHING COMPANY, 20675 BAHAMA STREET, CHATWWORTH, CA 91311

INSTITUTION NAME: THE EDITORIAL STAFF OF THE ENVIRONMENTAL LAW PUBLISHING SERVICE.

IRIS ACCESSION NUMBER: EW005731

PUBLICATION DATE: 74

TITLE: BASIC BLUEPRINT READINGS.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *BLUEPRINTS; *DRAWINGS; *ENGINEERING DRAWINGS; *INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *TRAINING MANUAL; *TRAINING PROGRAM; WORKBOOKS

DESCRIPTIVE NOTE: 160P. PRICE: $26.75, $267.50 COMPLETE COURSE 1503

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS TEN LESSONS ON HOW TO READ AND INTERPRET ENGINEERING PLANS AND DRAWINGS. THE TOPICS OF THE TEN LESSONS ARE: INTRODUCTION TO BLUEPRINTS, ELEMENTS OF MACHINE DRAWINGS, HYDRAULIC AND PNEUMATIC DRAWINGS, MACHINE DRAWINGS, BUILDING DRAWINGS, ELECTRICAL DRAWINGS, PIPE-SYSTEM DRAWINGS, SHEET METAL DRAWINGS, SHOP MATH, AND SKETCHING. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING

SYSTEMS, 1301 SO. GROVE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005732

PUBLICATION DATE: 74

TITLE: READING SCHEMATIC & SYMBOLS.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *DIAGRAMS; *INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; PROGRAMMED INSTRUCTION; *SCHEMATIC DIAGRAMS; SKILL DEVELOPMENT; *SYMBOLS; *TRAINING PROGRAMS; WORKBOOK

DESCRIPTIVE NOTE: 160P. PRICE: $26.75, $267.50 COMPLETE COURSE 1503

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS TEN LESSONS ON UNDERSTANDING ELECTRICAL, MECHANICAL, AND FLUID SYSTEMS THROUGH THE USE OF SCHEMATIC DIAGRAMS AND SYMBOLS. THE TOPICS OF THE TEN LESSONS ARE: INTRODUCTION TO SCHEMATICS, INTRODUCTION TO SYMBOLS, GUIDELINES FOR READING SCHEMATICS, ELECTRICAL SYMBOLS, ELECTRICAL DIAGRAMS, PIPING SYMBOLS, PIPING SCHEMATICS, FLUID POWER SYMBOLS, FLUID POWER SCHEMATICS, AND WELDING SYMBOLS. EACH LESSON INCLUDES A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO. GROVE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005733

PUBLICATION DATE: 76

TITLE: BASIC SHOP MATH.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *GEOMETRY; *INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; MATHEMATICAL APPLICATIONS; *MATHEMATICS; *MATHEMATICS EDUCATION; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *TRAINING PROGRAMS; WORKBOOK

DESCRIPTIVE NOTE: 160P. PRICE$26.75, $267.50 COMPLETE COURSE 1503.

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS TEN LESSONS ON BASIC SHOP MATH. THE TOPICS OF THE TEN LESSONS ARE: NUMBERS, FRACTIONS, DECIMALS, ALGEBRA AND FORMULAS, RATIO AND PERCENTAGE, POWERS AND ROOTS, PRACTICAL GEOMETRY, AREA AND VOLUME, WORKING WITH TRIANGLES, AND USING THE SLIDE RULE. EACH LESSON CONTAINS A PRESENTATION OF THE LITERATURE, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO. GROVE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005734

PUBLICATION DATE: 74

TITLE: MEASUREMENT.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; *MEASUREMENT; *MEASUREMENT TECHNIQUES; *METRIC SYSTEM; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *TRAINING PROGRAMS; WORKBOOKS

DESCRIPTIVE NOTE: 160P. PRICE: $26.75 SEPARATE, $267.50 COMPLETE COURSE 1503

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS TEN LESSONS ON THE METHODS OF DETERMINING WEIGHTS, PRESSURES, LENGTHS, AND VOLUMES, AND METRIC CONVERSION. THE TOPICS OF THE TEN LESSONS ARE: UNITS OF MEASUREMENT, METRIC MEASUREMENT, LINEAR MEASUREMENT, COMPARISON AND SURFACE MEASUREMENT, BULK MEASUREMENT, MOTION MEASUREMENT, FORCE MEASUREMENT, TEMPERATURE MEASUREMENT, FLUID MEASUREMENT, AND ELECTRICAL MEASUREMENT. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO. GROVE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005735

PUBLICATION DATE: 74

TITLE: METAL MATERIALS.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *ALLOYS; *INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; *METALLURGY; *METALS; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *TRAINING PROGRAMS; WORKBOOKS

DESCRIPTIVE NOTE: 160P. PRICE: $26.75 SEPARATE, $267.50 COMPLETE COURSE 1503

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS TEN LESSONS ON THE CHARACTERISTICS AND USES OF METALS AND ALLOYS FOR IN-PLANT APPLICATIONS. THE TOPICS OF THE TEN LESSONS ARE: PHYSICAL STRUCTURE OF METALS, PROPERTIES OF METALS, HEAT TREATMENT, MANUFACTURING PROCESSES, IRON, STEEL, CARBON, ALUMINUM, MAGNESIUM, TITANIUM, COPPER, LEAD, NICKEL, TIN, AND ZINC. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO. GROVE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005736

PUBLICATION DATE: 74

TITLE: NONMETAL MATERIALS.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: CHEMICALS; *INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; *NONMETAL MATERIALS; PAINTS; PLASTICS; PROGRAMMED INSTRUCTION; RUBBER; SKILL DEVELOPMENT; *TRAINING PROGRAMS; WOOD; WORKBOOKS

DESCRIPTIVE NOTE: 160P. PRICE: $26.75 SEPARATE, $267.50 COMPLETE COURSE 1503

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS TEN LESSONS ON THE CHARACTERISTICS AND USES OF NONMETAL MATERIALS FOR IN-PLANT APPLICATION. THE TOPICS OF THE TEN LESSONS ARE: INTRODUCTION TO NONMETALS, PLASTICS, RUBBER, CARBON, INDUSTRIAL CHEMICALS, PAINTS AND COATINGS, WOOD, CONSTRUCTION MATERIALS, INSULATING MATERIALS, AND ADHESIVES AND TAPES. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO. GROVE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005737

PUBLICATION DATE: 74

TITLE: HAND TOOLS.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: EQUIPMENT OPERATION; *HAND TOOLS; *INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; PROGRAMMED INSTRUCTION; *SAFETY; SKILL DEVELOPMENT; *TOOLS; *TRAINING PROGRAMS; WORKBOOKS

DESCRIPTIVE NOTE: 160P. PRICE: $26.75 SEPARATE, $267.50 COMPLETE COURSE 1503

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS TEN LESSONS ON SELECTING, USING, AND CARING FOR HAND TOOLS. THE TOPICS OF THE TEN LESSONS ARE: MEASURING TOOLS, WRENCHES AND SCREWDRIVERS, PIPEFITTING TOOLS, PLUMBING TOOLS, WOODWORKING TOOLS, SHEET METAL TOOLS, METALWORKING TOOLS, AND HOISTING AND PULLING TOOLS. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIALS, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO. GROVE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005738

PUBLICATION DATE: 74

TITLE: PORTABLE POWER TOOLS.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *EQUIPMENT; EQUIPMENT OPERATION; *INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; *POWER TOOLS; PROGRAMMED INSTRUCTION; *SAFETY; SKILL DEVELOPMENT; *TOOLS; *TRAINING PROGRAMS; WORKBOOKS

DESCRIPTIVE NOTE: 160P. PRICE: $26.75 SEPARATE, $267.50 COMPLETE COURSE 1503

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS TEN LESSONS ON SAFE PRACTICES FOR THE CARE AND HANDLING OF PORTABLE POWER TOOLS ON THE JOB. THE TOPICS OF THE TEN LESSONS ARE: ELECTRICAL DRILLS, ELECTRIC HAMMERS, ELECTRIC CIRCULAR SAWS, LINEAR MOTION SAWS, ROUTERS AND PLANES, ELECTRIC SANDERS, POWER SCREWDRIVERS AND WRENCHES, PNEUMATIC DRILLS AND HAMMERS, GRINDERS AND SHEARS, AND TOOL SHARPENING. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO. GROVE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005739

PUBLICATION DATE: 74

TITLE: PLANT SAFETY.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; *OCCUPATIONAL SAFETY AND HEALTH ACT; *PLANT SAFETY; PROGRAMMED INSTRUCTION; *SAFETY; SKILL DEVELOPMENT; *TRAINING PROGRAMS; WORKBOOKS

DESCRIPTIVE NOTE: 160P. PRICE: $26.75 SEPARATE, $267.50 COMPLETE COURSE 1503

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS TEN LESSONS ON PLANT SAFETY, AND UNDERSTANDING SAFETY STANDARDS APPROVED BY OSHA. THE TOPICS OF THE TEN LESSONS ARE: MAKING SAFETY WORK, WORK AREA SAFETY, SAFE MATERIAL HANDLING, TOOL AND EQUIPMENT SAFETY, MACHINERY SAFEGUARDS, PERSONAL PROTECTION, ELECTRICAL SAFETY, HAZARDOUS MATERIALS AND OPERATIONS, FIRE PREVENTION, AND UNDERSTANDING OSHA. EACH LESSON CONTAINS PRESENTATION OF MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO. GROVE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005740

PUBLICATION DATE: 74

TITLE: DEVELOPING TROUBLESHOOTING SKILLS.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; PROBLEM SOLVING; *PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *TRAINING PROGRAMS; *TROUBLESHOOTING; WORKBOOK

DESCRIPTIVE NOTE: 160P. PRICE: $26.75 SEPARATE, $267.50 COMPLETE COURSE 1503

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS TEN LESSONS ON DEVELOPING TROUBLESHOOTING SKILLS. THE TOPICS OF THE TEN LESSONS ARE: YOUR JOB IN MAINTENANCE, DEVELOPING GOOD WORKING HABITS, TROUBLESHOOTNNG TECHNIQUES, AIDS TO TROUBLESHOOTING, TROUBLESHOOTING WITH SCHEMATICS, BREAKDOWN MAINTENANCE, PREPARATIONS FOR TROUBLESHOOTING, SOLVING MECHANICAL PROBLEMS, SOLVING ELECTRICAL PROBLEMS, AND PLANNED MAINTENANCE. EACH LESSON CONTAINS A PRESENTATION OF MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO. GROVE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005741

PUBLICATION DATE: 74

TITLE: SUPERVISORS MATERIAL FOR TPC TRAINING PROGRAMS. FUNDAMENTALS-COMPLETE COURSE 1503.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *FACILITIES; HAND TOOLS; *INSTRUCTIONAL MATERIALS; *JOB SKILLS; *MAINTENANCE; MATHEMATICS; MEASUREMENT; SAFETY; *TEACHING GUIDES; *TRAINING MANUALS; *TRAINING PROGRAMS

DESCRIPTIVE NOTE: PRICE: $15.75

ABSTRACT: THIS PACKET CONTAINS THE NECESSARY MATERIALS TO CONDUCT A TRAINING PROGRAM IN PLANT MAINTENANCE. INCLUDED ARE: INFORMATION ON IMPLEMENTING THE TRAINING PROGRAM, SUPERVISORS UNIT GUIDE TO TOPICS, UNIT TESTS, ANSWER SHEETS, AUTOMATIC ANSWER KEY, PROGRESS CHARTS, UNIT COMPLETION CERTIFICATES, AND REQUEST FOR COMPLETION CERTIFICATES. TOPICS INCLUDED IN THIS TRAINING PROGRAM ARE: BASIC BLUEPRINT READING, READING SCHEMATICS AND SYMBOLS, BASIC SHOP MATH, MEASUREMENT, METAL MATERIALS, NON-METAL MATERIALS, HAND TOOLS, PORTABLE POWER TOOLS, PLANT SAFETY, AND DEVELOPMENT TROUBLESHOOTING SKILLS.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO GROVEE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005742

PUBLICATION DATE: 74

TITLE: UNDERSTANDING INDUSTRIAL POLLUTION CONTROL.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *AIR POLLUTION CONTROL; *INDIVIDUALIZED INSTRUCTION; INDUSTRIAL WASTES; *INSTRUCTIONAL MATERIALS; *NOISE; *POLLUTION CONTROL; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *SOLID WASTES; *TRAINING PROGRAMS; *WATER POLLUTION CONTROL; WORKBOOKS

DESCRIPTIVE NOTE: 80P. PRICE: $18.75, COURSE 1508

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS FIVE LESSONS ON THE BASICS OF AIR, WATER, SOLID WASTE, AND NOISE POLLUTION CONTROL. THE TOPICS OF THE FIVE LESSONS ARE: INTRODUCTION TO POLLUTION CONTROL, CONTROLLING AIR POLLUTION, CONTROLLING WATER POLLUTION, CONTROLLING SOLID WASTE POLLUTION, AND CONTROLLING NOISE POLLUTION. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO GROVEE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005743

PUBLICATION DATE: 74

TITLE: SUPERVISORS MATERIAL FOR TPC TRAINING PROGRAM-COURSE 1508. INDUSTRIAL POLLUTION CONTROL.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: AIR POLLUTION; EVALUATION; *INDUSTRIAL POLLUTION; *INSTRUCTIONAL MATERIALS; NOISE POLLUTION; *POLLUTION CONTROL; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; SOLID WASTES; *TEACHING GUIDES; *TRAINING MANUALS; *TRAINING PROGRAMS; WATER POLLUTION

DESCRIPTIVE NOTE: PRICE: $15.75

ABSTRACT: THIS PACKET CONTAINS SUPERVISORS MATERIAL FOR A TRAINING PROGRAM IN INDUSTRIAL POLLUTION CONTROL. INCLUDED IN THE PACKET ARE: SUPERVISORS UNIT GUIDE, UNIT TESTS, ANSWER SHEETS, AUTOMATIC ANSWER KEYS, PROGRESS CHARTS, UNIT COMPLETION CERTIFICATES, AND REQUESTS FOR COMPLETION CERTICICATES. TOPICS IN THE TRAINING UNIT INCLUDE: AIR, WATER, SOLID WASTE, AND NOISE POLLUTION AND POLLUTION CONTROL.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO GROVEE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005744

PUBLICATION DATE: 74

TITLE: HOW POWER PLANTS WORK.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: ENERGY; *INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; OPERATIONS; *POWER PLANTS; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *STEAM GENERATING SYSTEMS; *TRAINING PROGRAMS; WORKBOOKS

DESCRIPTIVE NOTE: 80P. PRICE: $18.75 SEPARATE, $56.25 COMPLETE COURSE 1509

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS FIVE LESSONS ON THE BASIC STEAM GENERATING SYSTEM. THE TOPICS OF THE FIVE LESSONS ARE: STEAM THE PRIMARY FORCE, HOW HEAT IS CONVERTED TO POWER, POWER PLANT EFFICIENCY, HANDLING WATER, FUEL, AND WASTES, AND POWER PLANT OPERATION AND CONTROL. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO GROVEE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005745

PUBLICATION DATE: 74

TITLE: GENERATING STEAM IN THE POWER PLANT.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *BOILERS; ENERGY CONSERVATION; *INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; MAINTENANCE; *POWER PLANTS; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *STEAM GENERATING SYSTEMS; *TRAINING PROGRAMS; WORKBOOKS

DESCRIPTIVE NOTE: 80P. PRICE: $18.75 SEPARATE, $56.25 COMPLETE COURSE 1509

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS FIVE LESSONS ON CONSERVING ENERGY THROUGH IMPROVED COMBUSTION CONTROL, BOILER OPERATION, AND MAINTENANCE. THE TOPICS OF THE FIVE LESSONS ARE: TRANSFORMING ENERGY INTO WORK, BOILER OPERATION, BOILER MAINTENANCE, COMBUSTION AND HOW IT WORKS, AND STEAM GENERATION. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO GROVEE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005746

PUBLICATION DATE: 74

TITLE: USING STEAM IN THE POWER PLANT.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *ENERGY CONSERVATION; FACILITIES; *INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; *POWER PLANTS; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *STEAM GENERATING SYSTEMS; *TRAINING PROGRAMS; TURBINES; WORKBOOKS

DESCRIPTIVE NOTE: 80P. PRICE: $18.75 SEPARATE, $56.25 COMPLETE COURSE 1509

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS FIVE LESSONS ON CONSERVING ENERGY THROUGH EFFICIENT USE OF STEAM IN TURBINES, AUXILLIARIES, ELECTRIC POWER GENERATION, AND AIR-CONDITIONING SYSTEMS. THE TOPICS OF THE FIVE LESSONS ARE: TURBINES, BOILER INSTRUMENTATION, CONTROLS AND SAFETY, ELECTRICAL POWER FUNDAMENTALS, ELECTRICAL SYSTEMS ANALYSIS, AND AIR-CONDITIONING SYSTEMS. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO GROVEE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005747

PUBLICATION DATE: 74

TITLE: SUPERVISORS MATERIAL FOR TPC TRAINING PROGRAM-COURSE 1509.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: ENERGY; EVALUATION; *INSTRUCTIONAL MATERIALS; POWER PLANTS; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; STEAM GENERATION; *TEACHING GUIDES; *TRAINING MANUALS; *TRAINING PROGRAMS; *UTILITIES

DESCRIPTIVE NOTE: PRICE: $15.75

ABSTRACT: THIS PACKET CONTAINS SUPERVISORS MATERIALS FOR A TRAINING PROGRAM IN UTILITIES AND POWER PRODUCTION. INCLUDED IN THE PACKET ARE: SUPERVISORS UNIT GUIDE, UNIT TESTS, ANSWER SHEETS, AUTOMATIC ANSWER KEYS, PROGRESS CHARTS, UNIT COMPLETION CERTIFICATES, AND REQUESTS FOR COMPLETION CERTIFICATES. TOPICS IN THE TRAINING UNIT INCLUDE: HOW POWER PLANTS WORK, GENERATING STEAM IN THE POWER PLANT, AND USING STEAM IN THE POWER PLANT.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO GROVEE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005748

PUBLICATION DATE: 74

TITLE: SEMICONDUCTORS.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *CIRCUITS; ELECTRICAL DEVICES; *ELECTRONICS; INDIVIDUALIZED INSTRUCTION; INDUSTRIAL TECHNOLOGY; *INSTRUCTIONAL MATERIALS; OPERATIONS; PROGRAMMED INSTRUCTION; *SEMICONDUCTORS; SKILL DEVELOPMENT; *TRAINING PROGRAMS; WORKBOOKS

DESCRIPTIVE NOTE: 80P. PRICE: $18.75 SEPARATE, $93.75 COMPLETE COURSE 2002

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS FIVE LESSONS ON THE OPERATION AND REPLACEMENT OF SEMICONDUCTORS FROM DIODES TO ICS, AND THEIR USE IN PRINTED CIRCUIT SUBASSEMBLIES. THE TOPICS OF THE FIVE LESSONS ARE: INTRODUCTION TO SEMICONDUCTORS, TRANSISTORS, INTEGRATED CIRCUITS, PRINTED CIRCUIT BOARDS, AND HOW TO RECOGNIZE AND REPLACE SEMICONDUCTOR PACKAGES. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO GROVEE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005749

PUBLICATION DATE: 74

TITLE: POWER SUPPLIES.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *ELECTRICAL SYSTEMS; *ELECTRONICS; *ELECTRICITY; INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; INDUSTRIAL TECHNOLOGY; MAINTENANCE; *POWER SUPPLIES; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *TRAINING PROGRAMS; TROUBLESHOOTING; WORKBOOKS

DESCRIPTIVE NOTE: 80P. PRICE: $18.75 SEPARATE, $93.75 COMPLETE COURSE 2002

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS FIVE LESSONS ON UNDERSTANDING, MAINTAINING, AND TROUBLESHOOTING POWER SUPPLIES. THE TOPICS OF THE FIVE LESSONS ARE: INTRODUCTION TO POWER SUPPLIES, RECTIFIERS, FILTERS, VOLTAGE REGULATORS, AND TROUBLESHOOTING POWER SUPPLIES. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO GROVEE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005750

PUBLICATION DATE: 74

TITLE: AMPLIFIERS.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *AMPLIFIERS; ELECTRICAL DEVICES; *ELECTRONICS; INDIVIDUALIZED INSTRUCTION; *INDUSTRIAL TECHNOLOGY; *INSTRUCTIONAL MATERIALS; MAINTENANCE; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *TRAINING PROGRAM; TROUBLESHOOTING; WORKBOOKS

DESCRIPTIVE NOTE: 80P. PRICE: $18.75 SEPARATE, $93.75 COMPLETE COURSE 2002

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS FIVE LESSONS ON UNDERSTANDING, MAINTAINING, AND TROUBLESHOOTING INDUSTRIAL AMPLIFIERS. THE TOPICS OF THE FIVE LESSONS ARE: INTRODUCTION TO AMPLIFIERS, SINGLE STAGE AMPLIFIERS, MULTISTAGE AMPLIFIERS, OPERATIONAL AMPLIFIERS, AND TROUBLESHOOTING AMPLIFIERS. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO GROVEE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005751

PUBLICATION DATE: 74

TITLE: OSCILLATORS AND MULTIVIBRATORS.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: ELECTRICAL CIRCUITS; *ELECTRONICS; *ELECTRICITY; INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; MAINTENANCE; *MULTIVIBRATORS; *OSCILLATORS; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *TRAINING PROGRAM; TROUBLESHOOTING; WORKBOOKS

DESCRIPTIVE NOTE: 80P. PRICE: $18.75 SEPARATE, $93.75 COMPLETE COURSE 2002

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS FIVE LESSONS ON UNDERSTANDING, MAINTAINING, AND TROUBLESHOOTING OSCILLATOR AND MULTIVIBRATOR CIRCUITS. THE TOPICS OF THE FIVE LESSONS ARE: OSCILLATORS, INVERTERS AND CONVERTERS, MULTIVIBRATORS, WAVE SHAPING AND PULSE GENERATING, AND TROUBLESHOOTING OSCILLATORS AND MULTIVIBRATORS. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO GROVEE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005752

PUBLICATION DATE: 74

TITLE: LOGIC CIRCUITS.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *ELECTRONICS; INDIVIDUALIZED INSTRUCTION; *INDUSTRIAL TECHNOLOGY; *INSTRUCTIONAL MATERIALS; *LOGIC CIRCUITS; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *TRAINING PROGRAMS; WORKBOOKS

DESCRIPTIVE NOTE: 80P. PRICE: $18.75 SEPARATE, $93.75 COMPLETE COURSE 2002

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS FIVE LESSONS ON UNDERSTANDING LOGIC CIRCUITS, THEIR FUNCTIONAL GROUPING AND INDUSTRIAL APPLICATIONS. THE TOPICS OF THE FIVE LESSONS ARE: BASIC DIGITAL ICS, LOGIC BUILDING BLOCKS, MEDIUM AND LARGE SCALE ICS, FUNCTIONAL LOGIC SYSTEMS, AND TROUBLESHOOTING LOGIC CIRCUITS. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO GROVEE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005753

PUBLICATION DATE: 74

TITLE: SUPERVISORS MATERIAL FOR TPC TRAINING PROGRAM-COURSE 2002-INDUSTRIAL ELECTRONICS.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *ELECTRICAL DEVICES; *ELECTRONICS; EVALUATION; INDUSTRIAL TECHNOLOGY; *INSTRUCTIONAL MATERIALS; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *TEACHING GUIDES; *TRAINING MANUALS; *TRAINING PROGRAMS

DESCRIPTIVE NOTE: PRICE: $15.75

ABSTRACT: THIS PACKET CONTAINS SUPERVISORS MATERIALS FOR A TRAINING PROGRAM IN INDUSTRIAL ELECTRONICS. INCLUDED IN THE PACKET ARE: SUPERVISORS UNIT GUIDE, UNIT TESTS, ANSWER SHEETS, AUTOMATIC ANSWER KEYS, PROGRESS CHARTS, UNIT COMPLETION CERTIFICATES, AND REQUESTS FOR COMPLETION CERTIFICATES. TOPICS IN THIS TRAINING UNIT INCLUDE: SEMICONDUCTORS, POWER SUPPLIES, AMPLIFIERS, OSCILLATORS, AND MULTIVIBRATORS, AND LOGIC CIRCUITS.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO GROVEE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005754

PUBLICATION DATE: 74

TITLE: INTRODUCTION TO ELECTRICITY & ELECTRONICS.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: CIRCUITS; CONDUCTORS; *ELECTRICITY; *ELECTRONICS; INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; MAGNETISM; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *TRAINING PROGRAM; WORKBOOKS

DESCRIPTIVE NOTE: 160P. PRICE: $26.75 SEPARATE, $267.50 COMPLETE COURSE

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS TEN LESSONS ON A BASIC NON-MATHEMATICAL APPROACH TO UNDERSTANDING ELECTRICITY AND ELECTRONICS. THE TOPICS OF THE TEN LESSONS ARE: ELECTRICAL ENERGY, STATIC ENERGY, SOURCES OF ELECTRICITY, MAGNETISM, VOLTAGE, CURRENT AND RESISTANCE, ELECTRICAL COMPONENTS, BASIC ELECTRONICS, CONDUCTORS, D-C CIRCUITS, AND A-C CIRCUITS. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO GROVEE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005755

PUBLICATION DATE: 74

TITLE: BATTERIES AND D-C CIRCUITS.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *BATTERIES; *D-C CIRCUITS; *ELECTRICAL SYSTEMS; *ELECTRICITY; INDIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *TRAINING PROGRAMS; WORKBOOKS

DESCRIPTIVE NOTE: 160P. PRICE: $26.75 SEPARATE, $267.50 COMPLETE COURSE

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS TEN LESSONS ON THE APPLICATION AND MAINTENANCE OF BATTERIES, AND UNDERSTANDING D-C CIRCUITS. THE TOPICS OF THE TEN LESSONS ARE: ELECTROCHEMICAL ACTION, BATTERY CHARACTERISTICS, TYPES OF BATTERIES, BATTERY MAINTENANCE, BATTERY CHARGING AND RECORDS, D-C CIRCUIT FUNDAMENTALS, D-C SERIES CIRCUITS, D-C PARALLEL CIRCUITS, SERIES-PARALLEL CIRCUITS, AND APPLICATION OF D-C CIRCUITS. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO GROVEE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005756

PUBLICATION DATE: 74

TITLE: TRANSFORMERS 8 A-C CIRCUITS.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *A-C CIRCUITS; *ELECTRICAL SYSTEMS; *ELECTRICITY; INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; MAINTENANCE; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *TRANSFORMERS; *TRAINING PROGRAMS; WORKBOOKS

DESCRIPTIVE NOTE: 160P. PRICE: $26.75 SEPARATE, $267.50 COMPLETE COURSE

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS TEN LESSONS ON A-C CIRCUITS, AND THE APPLICATION AND MAINTENANCE OF TRANSFORMERS. THE TOPICS OF THE TEN LESSONS ARE: PRINCIPLES OF ALTERNATING CURRENT, SINE WAVE FUNDAMENTALS, INDUCTANCE AND INDUCTIVE REACTANCE, CAPACITANCE AND CAPACITIVE REALTANCE, IMPEDANCE, A-C POWER, THREE-PHASE CIRCUITS, PRINCIPLES OF TRANSFORMERS, TRANSFORMER CONNECTIONS AND APPLICATIONS, AND TRANSFORMER MAINTENANCE. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO GROVEE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005757

PUBLICATION DATE: 74

TITLE: ELECTRICAL MEASURING INSTRUMENTS.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *ELECTRICAL DEVICES; *ELECTRICITY; INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *MEASUREMENT INSTRUMENTS; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *TRAINING PROGRAMS; WORKBOOKS

DESCRIPTIVE NOTE: 160P. PRICE: $26.75 SEPARATE, $267.50 COMPLETE COURSE

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS TEN LESSONS ON HOW TO SELECT, OPERATE, AND CARE FOR ELECTRICAL MEASURING EQUIPMENT. THE TOPICS OF THE TEN LESSONS ARE: PRINCIPLES OF ELECTRICAL INSTRUMENTS, D-C INSTRUMENTS, RESISTANCE MEASUREMENTS, A-C METER PRINCIPLES, A-C MEASUREMENTS, POWER MEASURING INSTRUMENTS, SPECIAL INSTRUMENTS, INDICATING INSTRUMENTS, RECORDING INSTRUMENTS AND INSTRUMENT CARE, AND ELECTRONIC INSTRUMENTS. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO GROVEE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005758

PUBLICATION DATE: 74

TITLE: ELECTRICAL PROTECTIVE DEVICES.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: CIRCUIT BREAKERS; *ELECTRICAL DEVICES; *ELECTRICAL RELAYS; *ELECTRICITY; FUSES; INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; *NATIONAL ELECTRICAL CODE; PROGRAMMED INSTRUCTION; SAFETY; SKILL DEVELOPMENT; *TRAINING PROGRAMS; WORKBOOKS

DESCRIPTIVE NOTE: 160P. PRICE: $26.75, SEPARATE, $267.50 COMPLETE SET

ABSTRACT: THIS TRAINEES GUIDE CONTAINS TEN LESSONS ON HOW TO SELECT FUSES, CIRCUIT BREAKERS, OVERLOAD RELAYS, AND HOW TO INTERPRET THE NATIONAL ELECTRICAL CODE. THE TOPICS OF THE TEN LESSONS ARE: FUSES, CIRCUIT BREAKERS, OVERLOAD RELAYS, APPLICATION OF PROTECTIVE DEVICES, GROUNDING, THE NATIONAL ELECTRICAL CODE, ELECTRICAL CALCULATIONS, WIREWAYS, INDUSTRIAL ILLUMINATION, AND MAINTENANCE AND SAFETY. EACH LESSON INCLUDES A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO GROVEE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005759

PUBLICATION DATE: 74

TITLE: D-C EQUIPMENT 8 CONTROLS.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *D-C EQUIPMENT; *ELECTRICAL EQUIPMENT; *ELECTRICAL SYSTEMS; ELECTRICITY; INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; MAINTENANCE; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *TRAINING PROGRAM; WORKBOOKS

DESCRIPTIVE NOTE: 160P. PRICE: $26.75 SEPARATE, $267.50 COMPLETE COURSE

ABSTRACT: THIS TRAINEES GUIDE CONTAINS TEN LESSONS ON THE OPERATION AND MAINTENANCE OF INDUSTRIAL D-C EQUIPMENT. THE TOPICS OF THE TEN LESSONS ARE: D-C POWER IN INDUSTRY, ELECTROMAGNETISM, D-C GENERATORS, D-C MOTORS, D-C ARMATURES, D-C RELAYS, D-C CONTROLLERS, D-C POWER SUPPLIES, SCR PRINCIPLES, AND D-C MAINTENANCE PRACTICES. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIALS, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO GROVEE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005760

PUBLICATION DATE: 74

TITLE: SINGLE PHASE MOTORS.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *ELECTRICAL SYSTEMS; INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; MAINTENANCE; *MOTORS; PROGRAMMED INSTRUCTION; *SKILL DEVELOPMENT; SINGLE-PHASE MOTORS; *TRAINING PROGRAMS; WORKBOOKS

DESCRIPTIVE NOTE: 160P. PRICE: $26.75 SEPARATE, $267.50 COMPLETE COURSE

ABSTRACT: THIS TRAINEES GUIDE CONTAINS TEN LESSONS ON THE OPERATING CHARACTERISTICS AND MAINTENANCE OF SINGLE-PHASE MOTORS. THE TOPICS OF THE TEN LESSONS ARE: OPERATING PRINCIPLES, SPLIT-PHASE MOTORS, CAPACITOR MOTORS, REPULSION MOTORS, UNIVERSAL MOTORS, SPECIAL MOTORS, SYNCHROS, SERVOS, STARTING AND PROTECTING, AND MOTOR MAINTENANCE. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO GROVEE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005761

PUBLICATION DATE: 74

TITLE: THREE-PHASE SYSTEMS.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *ELECTRICAL SYSTEMS; ELECTRICITY; GENERATORS; INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; MAINTENANCE; *MOTORS; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *THREE-PHASE SYSTEMS; *TRAINING PROGRAMS; WORKBOOKS

DESCRIPTIVE NOTE: 160P. PRICE: $26.75 SEPARATE, $267.50 COMPLETE COURSE

ABSTRACT: THIS TRAINEES GUIDE CONTAINS TEN LESSONS ON THE OPERATION AND MAINTENANCE OF THREE-PHASE INDUCTION MOTORS AND IN-PLANT POWER DISTRIBUTION SYSTEMS. THE TOPICS OF THE TEN LESSONS ARE: THREE-PHASE MOTOR PRINCIPLES, INDUCTION MOTORS, SYNCHRONOUS MOTORS, MULTIPLE-SPEED DUAL VOLTAGE MOTORS, THREE-PHASE MOTOR MAINTENANCE, A-C MOTOR STARTING PRINCIPLES, THREE-PHASE MOTOR CONTROLLERS, ALTERNATORS, AUXILIARY GENERAL SYSTEMS, AND POWER DISTRIBUTION SYSTEMS. EACH LESSON INCLUDES A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO GROVEE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005762

PUBLICATION DATE: 74

TITLE: A-C CONTROL EQUIPMENT.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *ELECTRICAL EQUIPMENT; *ELECTRICAL SYSTEMS; ELECTRICITY; INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; MAINTENANCE; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; SWITCHES; *TRAINING PROGRAMS; WIRING; WORKBOOKS

DESCRIPTIVE NOTE: 160P. PRICE: $26.75 SEPARATE, $267.50 COMPLETE COURSE

ABSTRACT: THIS TRAINEES GUIDE CONTAINS TEN LESSONS ON ELECTRICAL CONTROL SYSTEM OPERATIONS AND MAINTENANCE. THE TOPICS OF THE TEN LESSONS ARE: MOTOR STARTERS, PUSHBUTTON CONTROL STATIONS, LIMIT SWITCHES, SPECIAL CONTROL SWITCHES, TIMERS AND COUNTERS, CONTROL RELAYS, HAZARDOUS LOCATION EQUIPMENT, SPECIAL MOTOR CONTROL, MOTOR CONTROL CENTERS, AND CONTROL PANEL WIRING. EACH LESSON INCLUDES A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO GROVEE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005763

PUBLICATION DATE: 74

TITLE: ELECTRICAL TROUBLESHOOTING.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *ELECTRICAL EQUIPMENT; *ELECTRICAL SYSTEMS; ELECTRICITY; INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; PROBLEM SOLVING; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *TRAINING PROGRAMS; TROUBLESHOOTING; WORKBOOKS

DESCRIPTIVE NOTE: 160P. PRICE: $26.75 SEPARATE, $267.50 COMPLETE COURSE

ABSTRACT: THIS TRAINEES GUIDE CONTAINS TEN LESSONS ON THE STEP-BY-STEP APPROACH TO ELECTRICAL MAINTENANCE PROBLEM SOLVING. THE TOPICS OF THE TEN LESSONS ARE: TROUBLESHOOTING WITH ELECTRICAL SCHEMATICS, TROUBLESHOOTING WITH BUILDING DRAWINGS, TROUBLESHOOTING WITH CONTROL CIRCUITS, TROUBLESHOOTING COMBINATION STARTERS, TROUBLESHOOTING CONTROL DEVICES, TROUBLESHOOTING SPECIAL CONTROLS, TROUBLESHOOTING A-C MOTORS, TROUBLESHOOTING LIGHTING SYSTEMS, AND CUTTING TROUBLESHOOTING TIME. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO GROVEE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005764

PUBLICATION DATE: 74

TITLE: SUPERVISORS MATERIAL FOR TPC TRAINING PROGRAM-COURSE 2502 @ ELECTRICAL MAINTENANCE.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: A-C CIRCUITS; D-C CIRCUITS; *ELECTRICAL EQUIPMENT; *ELECTRONICS; *ELECTRICITY; EVALUATION; *INSTRUCTIONAL MATERIALS; PROGRAMMED INSTTUCTION; SKILL DEVELOPMENT; *TEACHING GUIDES; *TRAINING MANUALS; *TRAINING PROGRAM

DESCRIPTIVE NOTE: 160P. PRICE: $15.75

ABSTRACT: THIS PACKET CONTAINS SUPERVISORS MATERIALS FOR A TRAINING PROGRAM IN ELECTRICAL MAINTENANCE. INCLUDED IN THE PACKET ARE: SUPERVISORS UNIT GUIDE, UNIT TESTS, ANSWER SHEETS, AUTOMATIC ANSWER KEYS, PROGRESS CHARTS, UNIT COMPLETION CERTIFICATES, AND REQUESTS FOR COMPLETION CERTIFICATES. TOPICS IN THIS TRAINING UNIT INCLUDE: INTRODUCTION TO ELECTRICITY AND ELECTRONICS, BATTERIES AND D-C CIRCUITS, TRANSFORMERS AND A-C CIRCUITS, ELECTRICAL MEASURING INSTRUMENTS, ELECTRICAL PROTECTIVE DEVICES, D-C EQUIPMENT AND CONTROLS, SINGLE-PHASE MOTORS, THREE-PHASE SYSTEMS, A-C CONTROL EQUIPMENT, AND ELECTRICAL TROUBLESHOOTING.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO GROVEE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005765

PUBLICATION DATE: 74

TITLE: ELEMENTS OF MECHANICS.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: HAND TOOLS; *INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; MEASUREMENT; *MECHANICS; *PHYSICS; POWER TOOLS; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *TRAINING PROGRAMS; WORKBOOKS

DESCRIPTIVE NOTE: 160P. PRICE: $26.75 SEPARATE, $267.50 COMPLETE COURSE

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS TEN LESSONS ON AN INTRODUCTION TO BASIC MECHANICAL FUNCTIONS, MOTION, AND FORCE. THE TOPICS OF THE TEN LESSONS ARE: FORCES, MOTION, WORK AND ENERGY, SIMPLE MACHINES, USEFUL WORK, AREA AND VOLUME MEASUREMENT, HANDTOOLS, POWER TOOLS, FASTENERS, AND FRICTION. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO. GROVE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005766

PUBLICATION DATE: 74

TITLE: LUBRICATION.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *GREASES; *INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; *LUBRICATION; *OILS; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *TRAINING PROGRAMS; WORKBOOKS

DESCRIPTIVE NOTE: 160P. PRICE: $26.75 SEPARATE, $267.50 COMPLETE COURSE

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS TEN LESSONS ON THE PROPER SELECTION AND USE OF LUBRICANTS WITHIN THE PLANT. THE TOPICS OF THE TEN LESSONS ARE: PRINCIPLES OF LUBRICATION, LUBRICANT CHARACTERISTICS, ADDITIVES, LUBRICATING ACTION, AND BEARING LUBRICATION, OILS AND THEIR APPLICATIONS, GENERAL PURPOSE GREASES, SPECIAL PURPOSE GREASES, LUBRICATING COMPOUNDS, LUBRICATION SYSTEMS AND METHODS, AUTOMATIC LUBRICATION METHODS, AND LUBRICANT STORAGE AND HANDLING. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS 1301 SO. GROVE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005767

PUBLICATION DATE: 74

TITLE: DRIVE COMPONENTS.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *CLUTCHES; *COUPLINGS; *DRIVE COMPONENTS; *GEARS; *INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *TRAINING PROGRAMS; WORKBOOKS

DESCRIPTIVE NOTE: 160P. PRICE: $26.75 SEPARATE, $267.50 COMPLETE COURSE

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS TEN LESSONS ON THE APPLICATION OF COUPLINGS, CLUTCHES, GEARS, AND OTHER DRIVE ELEMENTS. THE TOPICS OF THE TEN LESSONS ARE: COMMON COUPLINGS, SPECIAL COUPLINGS, CLUTCHES, V-BELT DRIVES, CHAIN DRIVES, SPEED REDUCERS PARTS I AND II, GEARS, VARIABLE SPEED REDUCERS, AND BRAKES AND MOTORS. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIAL, PROGRAMMED ACTIVITIES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO. GROVE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005768

PUBLICATION DATE: 74

TITLE: BEARINGS.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *BEARINGS; FRICTIONLESS BEARINGS; *INDIVIDUALIZED INSTRUCTION; INSTALLATION; *INSTRUCTIONAL MATERIALS; INSPECTION; JOURNAL BEARINGS; *MAINTENANCE; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *TRAINING PROGRAMS; WORKBOOKS

DESCRIPTIVE NOTE: 160P. PRICE: $26.75 SEPARATE, $267.50 COMPLETE COURSE

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS TEN LESSONS ON THE PROPER INSTALLATION, INSPECTION, AND MAINTENANCE OF JOURNAL AND FRICTIONLESS BEARINGS. THE TOPICS OF THE TEN LESSONS ARE: PRINCIPLES OF BEARINGS AND SHAFTS, PLAIN JOURNAL BEARINGS PARTS I AND II, ANTIFRICTION BEARINGS PARTS I AND II, BALL AND ROLLER BEARINGS, SPECIALIZED BEARINGS, BEARING SEALS, LUBRICATION, AND BEARING MAINTENANCE. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIAL, PROGRAMMED ACTIVITIES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO. GROVE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005769

PUBLICATION DATE: 74

TITLE: PUMPS.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: CENTRIFUGAL PUMPS; *INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; MAINTENANCE; PROGRAMMED INSTRUCTION; *PUMPS; SKILL DEVELOPMENT; *TRAINING PROGRAMS; *WATER PUMPS; WORKBOOKS

DESCRIPTIVE NOTE: 160P. PRICE: $26.75 SEPARATE, $267.50 COMPLETE COURSE

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS TEN LESSONS ON THE OPERATING PRINCIPLES AND MAINTENANCE OF POSITIVE DISPLACEMENT AND CENTRIFUGAL PUMPS. THE TOPICS OF THE TEN LESSONS ARE: PUMP APPLICATIONS, PUMP SELECTION, CENTRIFUGAL PUMPS, PROPELLER AND TURBINE PUMPS, ROTARY PUMPS, RECIPROCATING PUMPS, METERING PUMPS, SPECIAL PURPOSE PUMPS, PACKINGS AND SEALS, AND PUMP MAINTENANCE. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIAL, PROGRAMMED ACTIVITIES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO. GROVE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005770

PUBLICATION DATE: 74

TITLE: PIPING SYSTEMS.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: FILTERS; *HYDRAULICS; *INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; *PIPE FITTINGS; *PIPES; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *TRAINING PROGRAM; VALVES; WORKBOOKS

DESCRIPTIVE NOTE: 160P. PRICE: $26.75 SEPARATE, $267.50 COMPLETE COURSE

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS TEN LESSONS ON THE TYPICAL IN-PLANT APPLICATIONS OF PIPING, TUBING, HOSE, AND FITTINGS. THE TOPICS OF THE TEN LESSONS ARE: PIPING SYSTEMS, METAL PIPING, NONMETALLIC PIPING, TUBING, HOSES, FITTINGS, COMMON VALVES, SPECIALIZED VALVES, STRAINERS, FILTERS, AND TRAPS, AND ACCESSORIES. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO. GROVE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005771

PUBLICATION DATE: 74

TITLE: BASIC HYDRAULICS.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *FLUIDS; *HYDRAULICS; *INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; MOTORS; *PIPES; PROGRAMMED INSTRUCTION; *PUMPS; SKILL DEVELOPMENT; *TRAINING PROGRAMS; VALVES; WORKBOOKS

DESCRIPTIVE NOTE: 160P. PRICE: $26.75 SEPARATE, $267.50 COMPLETE COURSE

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS TEN LESSONS ON, THE PRINCIPLES AND OPERATING CHARACTERISTICS OF HYDRAULIC SYSTEMS AND COMPONENTS. THE TOPICS OF THE TEN LESSONS ARE: PRINCIPLES OF HYDRAULICS, HYDRAULIC FLUIDS, STRAINERS AND FILTERS, RESERVOIRS AND ACCUMULATORS, HYDRAULIC PUMPS, PIPING, TUBING, AND FITTINGS, DIRECTIONAL CONTROL VALVES, PRESSURE CONTROL VALVES, CYLINDERS, AND HYDRAULIC MOTORS. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIAL, PROGRAMMED ACTIVITIES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO. GROVE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005772

PUBLICATION DATE: 74

TITLE: HYDRAULIC TROUBLESHOOTING.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *HYDRAULICS; *INDIVIDUALIZED INSTRUCTION; INSTALLATION; *INSTRUCTIONAL MATERIALS; *PIPES; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *TRAINING PROGRAMS; *TROUBLESHOOTING; VALVES; WORKBOOKS

DESCRIPTIVE NOTE: 160P. PRICE: $26.75 SEPARATE, $267.50 COMPLETE COURSE

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS TEN LESSONS ON HOW TO DIAGNOSE HYDRAULIC SYSTEM PROBLEMS AND PROPERLY INSTALL COMPONENTS. THE TOPICS OF THE TEN LESSONS ARE: HYDRAULIC SYSTEMS, HYDRAULIC SCHEMATIC DIAGRAMS, INSTALLING HYDRAULIC COMPONENTS, INSTALLING PIPES AND TUBES, SELECTING HYDRAULIC FLUIDS, PLANNING SYSTEM MAINTENANCE, TROUBLESHOOTING SYSTEMS, TROUBLESHOOTING VALVES, TROUBLESHOOTING CYLINDERS, TROUBLESHOOTING PUMPS AND MOTORS. EACH LESSON INCLUDES A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO. GROVE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005773

PUBLICATION DATE: 74

TITLE: BASIC PNEUMATICS.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *AIR TREATMENT; *COMPRESSORS; *INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; *PNEUMATICS; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *TRAINING PROGRAMS; VALVES; WORKBOOKS

DESCRIPTIVE NOTE: 160P. PRICE: $26.75 SEPARATE, $267.50 COMPLETE COURSE

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS TEN LESSONS ON THE PRINCIPLES AND OPERATING CHARACTERISTICS OF COMPRESSED AIR SYSTEMS AND COMPONENTS. THE TOPICS OF THE TEN LESSONS ARE: PNEUMATIC PRINCIPLES; PRIMARY AIR TREATMENT; SECONDARY AIR TREATMENT; PIPING, HOSES, AND FITTINGS, CONTROL VALVES; PRESSURE RELIEF VALVES; CYLINDERS; AND MOTORS. EACH LESSON CONTAINS A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO. GROVE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005774

PUBLICATION DATE: 74

TITLE: PNEUMATIC TROUBLESHOOTING.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *AIR COMPRESSORS; HYDRAULIC SYSTEMS; INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; MAINTENANCE; *PNEUMATICS; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *TRAINING PROGRAMS; *TROUBLESHOOTING; WORKBOOKS

DESCRIPTIVE NOTE: 160P. PRICE: $26.75 SEPARATE, $267.50 COMPLETE COURSE

ABSTRACT: THIS TRAINEE'S GUIDE CONTAINS TEN LESSONS ON HOW TO DIAGNOSE COMPRESSED AIR SYSTEM PROBLEMS AND PROPERLY INSTALL COMPONENTS. THE TOPICS OF THE TEN LESSONS ARE: PNEUMATIC SYSTEMS, PNEUMATIC SCHEMATIC DIAGRAMS, INSTALLATION OF SYSTEM COMPONENTS, SYSTEM MAINTENANCE, DETERMINING SYSTEM FAILURES, TROUBLESHOOTING CONTROL VALVES, TROUBLESHOOTING CYLINDERS, TROUBLESHOOTING AIR MOTORS, AND PNEUMATIC/HYDRAULIC SYSTEMS. EACH LESSON INCLUDES A PRESENTATION OF THE MATERIAL, PROGRAMMED EXERCISES, AND A COMPLETION QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO GROVEE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005775

PUBLICATION DATE: 74

TITLE: SUPERVISORS MATERIAL FOR TPC TRAINING PROGRAMS-COURSE 3507-MECHANICAL MAINTENANCE.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: EVALUATION; *HYDRAULICS; *INSTRUCTIONAL MATERIALS; MAINTENANCE; *MECHANICS; *PNEUMATICS; PROGRAMMED INSTRUCTION; SKILL DEVELOPMENT; *TEACHING GUIDES; *TRAINING MANUALS; *TRAINING PROGRAMS

DESCRIPTIVE NOTE: 160P. PRICE: $13.75

ABSTRACT: THIS PACKET CONTAINS SUPERVISORS MATERIALS FOR A TRAINING PROGRAM IN MECHANICAL MAINTENANCE. INCLUDED IN THE PACKET ARE: SUPERVISORS UNIT GUIDE, UNIT TESTS, ANSWER SHEETS, AUTOMATIC ANSWER KEYS, PROGRESS CHARTS, UNIT COMPLETION CERTIFICATES, AND REQUESTS FOR COMPLETION CERTIFICATES. TOPICS IN THE TRAINING UNIT INCLUDE: ELEMENTS OF MECHANICS, LUBRICATION, DRIVE COMPONENTS, BEARINGS, PUMPS, PIPING SYSTEMS, BASIC HYDRAULICS, HYDRAULIC TROUBLESHOOTING, BASIC PNEUMATICS, AND PNEUMATIC TROUBLESHOOTING.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO GROVEE, BARRINGTON, IL 60010, TELEPHONE: (312) 381-1840

IRIS ACCESSION NUMBER: EW005776

PUBLICATION DATE: NOV 80

TITLE: SEPTAGE AND WASTEWATER TREATMENT IN THE ACTIVATED SLUDGE PROCESS.

PERSONAL AUTHOR: SEGALL, BURTON A.; OTT, CHARLES R.

DESCRIPTOR: *ACTIVATED SLUDGE; CLARIFICATION; *DESIGN; MUNICIPALITES; *OPERATIONS (WASTEWATER); *SEPTAGE; SEPTIC TANKS; *SLUDGE; ULITIES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 2655-2665P.

ABSTRACT: LARGE QUANTITIES OF SEPTAGE WERE FED TO A CONVENTIONAL ACTIVATED SLUDGE PLANT LOCATED AT MARLBOROUGH, MASSACHUSETTS. THE WASTE WAS FED ON BOTH CONTINUOUS AND SHOCKING LOAD SCHEDULES. PROCESS CHARGES, ALONG WITH WASTEWATER AND SEPTAGE CHARACTERSTICS, WERE MONITORED. CRITICAL CONSIDERATIONS FOR TREATMENT PLANT DESIGN AND OPERATION ARE PRESENTED AND THE EFFECTS OF VARIOUS LOADING LEVELS IS SHOWN. GRAVITY FLOW IN LARGE CONDUITS OR INTERMITTENT SEPTAGE PUMPING IS RECOMMENDED TO DIMINISH OPERATIONAL PROBLEMS. SEPTAGE TREATMENT COSTS ARE SIGNIFICANTLY REDUCED WHEN BIOLOGICAL TREATMENT IS BYPASSED AND THE WASTE IS SUBJECTED TO DEWATERING PROCESSES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V52 N11

IRIS ACCESSION NUMBER: EW005777

PUBLICATION DATE: NOV 80

TITLE: CASE STUDY OF PREDICTION OF SULFIDE GENERATION AND CORROSION IN SEWERS.

PERSONAL AUTHOR: MEYER, WALTER J.

DESCRIPTOR: *CORROSION; *CASE STUDIES; *HYDROGEN SULFIDE; MODELS; *PREDICTION; RESEARCH; *SULFIDES; *SEWERS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 2666-2674P.

ABSTRACT: A CASE STUDY WAS PERFORMED TO CORRELATE PREDICTIONS OF SULFIDE GENERATION AND CORROSION EQUATIONS WITH OBSERVED CONDITIONS IN A TRUNK SEWER SYSTEM. PREDICTED SULFIDE LEVELS, USING POMEROYS LESS-CONSERVATIVE EQUATIONS, COMPARED WELL WITH OBSERVED CONCENTRATIONS WHEN THE DILUTION AT JUNCTIONS WAS CONSIDERED. THE HYDRAULIC AND WASTEWATER CHARACTERISTICS WERE AVERAGED OVER 5-YEAR INCREMENTS AND THE PREDICTED CORROSION WAS CALCULATED AND COMPARED WITH THE OBSERVED CORROSION. THE RESULTS OF THE STUDY ESTABLISH WITH CONFIDENCE THAT EQUATIONS FOR PREDICTING SULFIDE GENERATION AND CORROSION OF SEWERS MAY BE USED IN SEWER DESIGN TO ASSURE ADEQUATE SERVICE LIFE. THE STUDY INDICATES MEANS OF APPLYING THE DATA AND USING THE EQUATIONS TO ACCOUNT FOR VARIABLE FACTORS FOR MORE ACCURATE PREDICTIONS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V52, N11

IRIS ACCESSION NUMBER: EW005778

PUBLICATION DATE: NOV 80

TITLE: MICROBIAL ECOSYSTEMS RESPONSIBLE FOR ANAEROBIC DIGESTION AND COMPOSTING.

PERSONAL AUTHOR: FINSTEIN, M. S.; AND OTHERS

DESCRIPTOR: *ANAEROBIC DIGESTION; BIOLOGICAL TREATMENT; *COMPOSTING; *ECOSYSTEMS; *ECOLOGY; *MICROBIOLOGY; *OPERATIONS (WASTEWATER); *SLUDGE; SLUDGE MANAGEMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 2675-2685P.

ABSTRACT: WITHIN THE LAST FEW YEARS, COMPOSTING HAS EMERGED AS AN ALTERNATIVE TO ANAEROBIC DIGESTION FOR THE TREATMENT OF WASTEWATER SLUDGE. THESE BIOLOGICAL PROCESSES ARE EXAMINED AND COMPARED FROM THE FUNDAMENTAL PERSPECTIVE OF THEIR UNDERLYING MICROBIAL ECOSYSTEMS. THE STRENGHTHS AND WEAKNESSES OF THE PROCESSES ARE EXPLORED RELATIVE TO CONTEMPORARY NEEDS IN SLUDGE MANAGEMENT.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V52 N11

IRIS ACCESSION NUMBER: EW005779

PUBLICATION DATE: NOV 80

TITLE: COMPARATIVE PERFORMANCE OF ROTATING BIOLOGICAL CONTACTORS USING AIR AND PURE OXYGEN.

PERSONAL AUTHOR: HUANG, JU-CHANG

DESCRIPTOR: ALGAE; *BIOLOGICAL CONTACTORS; CIVIL ENGINEERING; *DESIGN; *EVALUATION; *OPERATIONS (WASTEWATER); *OXYGEN; *ROTATING BIOLOGICAL FILTERS; *SLUDGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 2686-2703P.

ABSTRACT: COMPARISON IS MADE OF THE PERFORMANCE OF THREE PARALLEL ROTATING BIOLOGICAL CONTACTORS IN TREATING A SYNTHETIC MILK WASTE BY USING AIR AND PURE OXYGEN UNDER ATMOSPHERIC OR PRESSURIZED CONDITIONS. PURE OXYGEN UNDER PRESSURE IS FOUND TO INCREASE THE THICKNESS OF BIOFILMS DEVELOPED ON THE DISK SURFACE, WHICH IN TURN IMPROVES THE CHEMICAL OXYGEN DEMAND REDUCTION, PROVIDED THAT THE WASTE STRENGTH IS HIGH AND THE BIOFILMS DO NOT BRIDGE OVER THE DISK CLEARANCE. USE OF PURE OXYGEN ALSO GREATLY IMPROVES THE SLUDGE SETTLEABILITY AND REDUCES THE FILAMENTOUS GROWTH. HOWEVER, LABORATORY DATA APPEAR TO INDICATE THAT AN EXCESSIVELY HIGH CONCENTRATION OF DISSOLVED OXYGEN HAS AN INHIBITORY EFFECT ON BIOLOGICAL NITRIFICATION.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V52 N11

IRIS ACCESSION NUMBER: EW005780

PUBLICATION DATE: NOV 80

TITLE: PERFORMANCE OF A LARGE ADVANCED WASTE TREATMENT PLANT.

PERSONAL AUTHOR: ECKMANN, DONALD E.; ZIMMERMAN, HAROLD S.

DESCRIPTOR: *ACTIVATED SLUDGE; *ADVANCED WASTEWATER TREATMENT; BIOCHEMICAL OXYGEN DEMAND; *COSTS; *EFFICIENCY; EFFLUENTS; *EVALUATION; FILTRATION; NITROGEN; *OPERATIONS (WASTEWATER); PHOSPHOROUS; SUSPENDED SOLIDS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 2717-2725P.

ABSTRACT: THE ARTICLE DESCRIBES THE OPERATIONAL ACTIVITIES OF THE ROANOKE ADVANCED WASTEWATER TREATMENT PLANT. THE PLANT CONSISTS OF THE ACTIVATED SLUDGE PROCESS FOLLOWED BY NITRIFICATION, FLOCCULATION, COAGULATION, FILTRATION, AND DISINFECTION FACILITIES. THE QUALITY OF THE EFFLUENT UNDER AVERAGE AND MAXIMUM CONDITIONS, THE EFFECT OF EACH PROCESS UPON THE OVERALL TREATMENT, AMOUNT OF SLUDGE GENERATED, CHEMICALS USED, AND OTHER MAJOR PARAMETERS OF EACH PROCESS WITH SPECIAL EMPHASIS ON FILTRATION, AS WELL AS CONSTRUCTION AND OPERATIONAL COSTS ARE PRESENTED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V52 N11

IRIS ACCESSION NUMBER: EW005781

PUBLICATION DATE: NOV 80

TITLE: TRADE-OFFS IN SLUDGE THICKENING AND TRANSPORT/REUSE SYSTEMS.

PERSONAL AUTHOR: LEININGER, KURT V.; AND OTHERS

DESCRIPTOR: *COSTS; *DESIGN; DEWATERING; ECONOMICS; *EVALUATION; *OPERATIONS (WASTEWATER); PILOT STUDIES; *REUSE; *RECYCLING; *SLUDGE; *SLUDGE THICKENING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 2771-2779P.

ABSTRACT: THIS ARTICLE DESCRIBES THE PILOT TESTING AND COST ANALYSIS OF ALTERNATIVE SLUDGE THICKENING PROCESSES WHICH WERE CARRIED OUT AS A PART OF A PREDESIGN STUDY. TEST RESULTS AND COST ANALYSES ARE SUMMARIZED, AND SOME OF THE VARIABLES AND THEIR EFFECTS ON SYSTEM COSTS ARE DISCUSSED. COSTS OF THICKENING ARE A MAJOR COMPONENT OF OVERALL SYSTEM COSTS FOR THE REUSE PROGRAM. THERE ARE DEFINITE TRADE-OFFS TO BE MADE BETWEEN THICKENING AND TRANSPORT /REUSE COSTS. IN PARTICULAR, THE COST OF PROVIDING NEW THICKENING CAPABILITIES IS NOT NECESSARILY LESS THAN THE SAVINGS THAT WOULD RESULT IN TRANSPORT/REUSE COSTS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V52 N11

IRIS ACCESSION NUMBER: EW005782

PUBLICATION DATE: NOV 80

TITLE: AN OVERVIEW OF EUROPEAN WATER TREATMENT PRACTICE.

PERSONAL AUTHOR: KNOPPERT, P. L.; AND OTHERS

DESCRIPTOR: *BIOLOGICAL TREATMENT; *CHEMICAL TREATMENT; *EUROPE; FACILITIES; *MANAGEMENT; *OPERATIONS (WATER); *PHYSICAL TREATMENT; WATER QUALITY; *WATER TREATMENT; WATER POLLUTION; WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 592-599P.

ABSTRACT: THE PHILOSOPHY BEHIND NEW TREATMENT DESIGNS IN EUROPE IS TO REMOVE TOTAL ORGANIC CARBON AND SYNTHETIC ORGANIC CONTAMINANTS IN SUCCESSIVE TREATMENT STEPS-STORAGE, FLOCCULATION, SETTLING, OZONATION, RAPID AND SLOW SAND FILTRATION, AND GRANULAR ACTIVATED FILTRATION - RATHER THAN ONLY IN THE FILTERS. THE IDEA IS TO COMBINE PHYSICAL, CHEMICAL, AND BIOLOGICAL REMOVAL MECHANISMS IN AN INTEGRATED SYSTEM TO ACHIEVE OPTIMUM REMOVAL OF MICROPOLLUTANTS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V72 N11

IRIS ACCESSION NUMBER: EW005783

PUBLICATION DATE: NOV 80

TITLE: TAPPING DRINKING WATER DATA: A PROTOTYPE SYSTEM.

PERSONAL AUTHOR: DEININGER, ROLF A.

DESCRIPTOR: *DRINKING WATER; *DATA MANAGEMENT; *DATABASES; *INFORMATION DISSEMINATION; *MANAGEMENT SYSTEMS; PUBLIC WATER SYSTEMS; RESEARCH; *STANDARDS; *UTILITIES; *WATER QUALITY; *WATER SUPPLY

DESCRIPTIVE NOTE: 600-603P.

ABSTRACT: AS DECISIONS ON NEW WATER QUALITY STANDARDS ARE MADE, IT IS IMPERATIVE THAT INFORMATION BE AVAILABLE ON HOW MANY PUBLIC WATER SYSTEMS ARE AFFECTED AND TO WHAT EXTENT. A RECENTLY DEVELOPED PROTOTYPE DATA ANALYSIS AND MANAGEMENT SYSTEM WITH ONLINE INTERACTIVE CAPABILITIES WOULD PERMIT AUTHORIZED USERS TO INTERROGATE THE SYSTEM AND ANALYZE DATA ON UNITED STATES UTILITIES AND SELECTED WATER QUALITY PARAMETERS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V72 N11

IRIS ACCESSION NUMBER: EW005784

PUBLICATION DATE: NOV 80

TITLE: LARGE-SCALE OZONE-DE FILTRATION: AN INDUSTRY FIRST.

PERSONAL AUTHOR: BRYANT, EDWARD A.; BRAILEY, DONALD

DESCRIPTOR: *COMPARATIVE ANALYSIS; COST EFFECTIVENESS; EFFICIENCY; AESTHETICS; MAINTENANCE; *OPERATIONS (WASTEWATER TREATMENT); *URBAN AREAS; *WATER TREATMENT; WATER QUALITY; *WATER SUPPLY

DESCRIPTIVE NOTE: 604-611P.

ABSTRACT: PRESENTED IS A COMPARATIVE STUDY OF HIGH-RATE CONVENTIONAL TREATMENT, DIRECT FILTRATION WITH GRANULAR MEDIA AND OZONE-DIATOMACEOUS EARTH (DE) FILTRATION. FOR THIS PARTICULAR APPLICATION THE OZONE-DE TREATMENT PROVED TO BE THE PROCESS OF CHOICE.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V72 N11

IRIS ACCESSION NUMBER: EW005785

PUBLICATION DATE: NOV 80

TITLE: 1981 BUYERS' GUIDE.

DESCRIPTOR: *CONSULTANTS; *DIRECTORIES; *EQUIPMENT SUPPLIERS; EQUIPMENT; *MANUFACTURERS; TECHNICAL PUBLICATIONS; *WATER RESOURCES; WATER SUPPLY PRODUCTS; WATER SUPPLY SERVICES

DESCRIPTIVE NOTE: BG 1- BG 120P.

ABSTRACT: THIS VOLUME IS A LISTING OF THE FOLLOWING CORPORATE MEMBERS OF THE AMERICAN WATER WORKS ASSOCIATION (AWWA): (1) ASSOCIATES; (2) MANUFACTURERS AGENTS, REPRESENTATIVES, AND DISTRIBUTORS; (3) CONTRACTORS; AND (4) CONSULTANTS. THESE LISTINGS PROVIDE A CLASSIFIED INDEX OF SUPPLIERS OF WATER SUPPLY PRODUCTS AND SERVICES. A SECTION CONTAINING UP-TO-DATE INFORMATION ON A.W.W.A. TECHNICAL PUBLICATIONS AND COMMUNITY RELATIONS AIDS IS ALSO INCLUDED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, PART II, V72 N11

IRIS ACCESSION NUMBER: EW005787

PUBLICATION DATE: MAR 80

TITLE: INFORMATION AND COMMUNICATION TECHNOLOGY FOR THE COMMUNITY.

PERSONAL AUTHOR: JOHNSON, STEVE

DESCRIPTOR: *COMMUNICATIONS; *COMMUNITY SERVICES; *COMPUTER APPLICATIONS; COMPUTERS; *EDUCATIONAL PROGRAMS; *ELECTRONIC INFORMATION EXCHANGE SYSTEM; *INFORMATION DISSEMINATION; *INFORMATION SYSTEMS; *PUBLIC PARTICIPATION; REPORTS; TECHNOLOGICAL ADVANCEMENT

DESCRIPTIVE NOTE: 118P.

ABSTRACT: THIS REPORT EXAMINES INFORMATION AND COMMUNICATION TECHNOLOGY AS RESOURCES, AND THE WAYS INDIVIDUALS AND COMMUNITY ORGANIZATIONS CAN BENEFIT FROM THE RESOURCES. THE INTRODUCTION IN THIS REPORT ADDRESSES THE BASIS FOR THE CENTER FOR URBAN EDUCATIONS INVOLVEMENT WITH THE ELECTRONIC INFORMATION EXCHANGE SYSTEM (EIES). CHAPTER I PRESENTS AN OVERVIEW OF INFORMATION AND COMMUNICATION TECHNOLOGY, CURRENT PUBLIC POLICY, INNOVATIVE COMMUNITY USES OF THE TECHNOLOGY, AND SPECULATIONS ABOUT THE FUTURE IMPACTS ON SOCIETY. OTHER CHAPTERS EXAMINE EIES, ITS APPLICATIONS, LIMITS, AND PROBLEMS, THE EIES CUE PROJECT, AND WHERE TO GO FOR ADDITIONAL RESOURCES.

AVAILABILITY: CENTER FOR URBAN EDUCATION, 0245 S.W. BANCROFT, PORTLAND, OR 97201, TELEPHONE: (503) 221-0984

IRIS ACCESSION NUMBER: EW005789

PUBLICATION DATE: DEC 79

TITLE: HEALTH EFFECTS OF CHLORDANE.

PERSONAL AUTHOR: MUSSELMAN, ROD

DESCRIPTOR: *CHLORDANE; *HEALTH EFFECTS; *INSECTICIDES; OCCUPATIONAL SAFETY; *PESTICIDES; *SAFETY; *TOXICITY; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 27P.

ABSTRACT: THIS REPORT EXAMINES THE CHEMICAL PESTICIDE CHLORDANE AND ITS EFFECT ON HUMANS AND THE NATURAL ENVIRONMENT. SECTIONS INCLUDE: CHEMICAL AND PHYSICAL DATA, PRODUCTION AND USE, ENVIRONMENTAL RESIDUES, BIOLOGICAL ACTION, AND REFERENCES.

AVAILABILITY: ILLINOIS INSTITUTE OF NATURAL RESOURCES, 309 WEST WASHINGTON STREET, CHICAGO, IL 60606

IRIS ACCESSION NUMBER: EW005790

TITLE: WATER PASSAGES.

DESCRIPTOR: *AUDIOVISUAL AIDS; AGRICULTURE; CONSERVATION; ENERGY CONSERVATION; ECONOMICS; *FACILITIES; *FILMS; *INSTRUCTIONAL MATERIALS; *LAND TREATMENT; *LAND APPLICATION; *RECYCLING; *WASTEWATER TREATMENT; *WATER RESOURCES; *WATER CONSERVATION

DESCRIPTIVE NOTE: 30 MINUTE FILM, FREE LOAN FILM

ABSTRACT: THIS 30 MINUTE FILM FOCUSES ON FIVE APPLICATIONS OF A CLEAR WATER TECHNOLOGY KNOWN AS 'LAND TREATMENT'. FIVE COMMUNITIES IN THE UNITED STATES, EACH WITH A DIFFERENT

METHOD FOR HANDLING WASTE WATER TREATMENT ARE VISITED. INTERVIEWS ARE CONDUCTED WITH KEY PERSONNEL RESPONSIBLE FOR THE ESTABLISHMENT AND OPERATION OF THE WASTEWATER TREATMENT FACILITIES. THE FILM STRESSES THE NEED FOR CONSERVING AND RECYCLING DWINDLING WATER RESOURCES.

AVAILABILITY: MODERN TALKING PICTURE SERVICE, 5000 PARK STREET NORTH, ST. PETERSBURG, FL 33709

IRIS ACCESSION NUMBER: EW005791

TITLE: FLOW, VOLUME - PART 1: FLOW CHARACTERISTICS.

PERSONAL AUTHOR: DOWDELL, RODGER B.

DESCRIPTOR: FLOW CHARACTERISTICS; FLUID FLOW; *FLUID DYNAMICS; *HYDRAULICS; *MEASUREMENT; *PIPELINE FLOWS

DESCRIPTIVE NOTE: 48P. PRICE: $40.00 EACH, $110.00 COMPLETE SET OF 3 BOOKS

ABSTRACT: THIS VOLUME IS PART ONE OF A THREE PART SERIES ON FLOW TECHNOLOGY BASED UPON THE PROCEEDINGS OF THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS FLUIDS ENGINEERING CONFERENCE. THIS VOLUME EXPLAINS FLUID BEHAVIORAL PROPERTIES THAT DETERMINE POSSIBLE FLUID METERING METHODS IN SOME CASES, CONSTRAINTS TO FLUID METERING IN OTHERS. ADDITIONAL TOPICS COVER OPEN CHANNELS - BOTH SHALLOW AND DEEP AND WITH BROAD VELOCITY RANGES, FLOWING FLUIDS THAT ARE HOMOGENEOUS AND NON-HOMOGENEOUS, TURBULENT TO NON-TURBULENT, HIGH TO VERY LOW TEMPERATURES, STEADY STATE TO PULSATING. FLOW SITUATIONS INCLUDE PIPELINE FLOW, MOISTURE FLOW THROUGH SOIL, TIDAL CURRENTS, CRYOGENIC FLUID TRANSFER, AND ATMOSPHERIC TURBULENCE. THIS VOLUME ALSO CONTAINS PAPERS DEALING WITH VELOCITY AND PRESSURE MEASUREMENTS, AND MEASUREMENTS IN FLUID MECHANICS.

AVAILABILITY: INSTRUMENT SOCIETY OF AMERICA, P. O. BOX 34093P, PITTSBURG, PA 15230

IRIS ACCESSION NUMBER: EW005792

TITLE: FLOW, VOLUME 1 - PART 2: FLOW MEASURING DEVICES.

PERSONAL AUTHOR: DOWDELL, RODGER B.

DESCRIPTOR: CALIBRATION; *FLOWMETERS; *FLUID FLOW; *HYDRAULICS; *INSTRUMENTATION; *MEASUREMENT; *TECHNOLOGY

DESCRIPTIVE NOTE: 68P. PRICE: $40.00 EACH, $110.00 COMPLETE 3 BOOK SET

ABSTRACT: THIS VOLUME IS PART TWO OF A THREE PART SERIES ON FLOW TECHNOLOGY BASED UPON THE PROCEEDINGS OF THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS FLUIDS ENGINEERING CONFERENCE. THIS VOLUME IS CONCERNED WITH THE PHENOMENA THAT CAN BE EXPLOITED FOR MEASUREMENT PURPOSES, AND THE INSTRUMENTS BASED ON THOSE PHENOMENA. FROM DESIGN TO CALIBRATION TO APPLICATIONS, PAPERS FOCUS ON VIRTUALLY EVERY KIND OF VELOCITY AND VOLUMETRIC FLOWMETER: ORIFICE, TURBINE, ELECTROMAGNETIC, THERMAL, VORTEX, MASS, ULTRASONIC AND OTHER TYPES.

AVAILABILITY: INSTRUMENT SOCIETY OF AMERICA, P. O. BOX 3409P, PITTSBURGH, PA 15230

IRIS ACCESSION NUMBER: EW005793

TITLE: FLOW, VOLUME 1 - PART 3: FLOW MEASUREMENT AND CONTROL, BIOLOGICAL FLUID FLOWS.

PERSONAL AUTHOR: DOWDELL, RODGER B.

DESCRIPTOR: *BIOLOGICAL FLUID FLOWS; *CONTROL VALVES; *FLUID FLOW; *HYDRAULICS; *MEASUREMENT; SYSTEM DESIGN; TECHNOLOGY; *VALVES

DESCRIPTIVE NOTE: 45P. PRICE: $40.00 EACH, $110.00 COMPLETE SET OF 3 BOOKS

ABSTRACT: THIS VOLUME IS PART THREE OF A THREE PART SERIES ON FLOW TECHNOLOGY BASED UPON THE PROCEEDINGS OF THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS FLUIDS ENGINEERING CONFERENCE. THIS VOLUME INVESTIGATES PRESENT KNOWLEDGE OF FLOW CONTROL, INCLUDING THE EFFECTS OF CONTROL VALVE SIZING, SYSTEM DESIGN AND APPLICATION, AND CONTROL VALVE NOISE. PAPERS ALSO COVER THE FLUID POWER CONTROL ASPECTS OF SYSTEM DESIGN AND VALUE CHARACTERISTICS, AS WELL AS THE PRINCIPLES AND PRACTICE IN FLOW BENCHMARKS.

AVAILABILITY: INSTRUMENT SOCIETY OF AMERICA, P. O. BOX 34093P, PITTSBURGH, PA 15230

IRIS ACCESSION NUMBER: EW005796

PUBLICATION DATE: DEC 80

TITLE: GUIDELINES FOR DATA ACQUISITION AND DATA QUALITY EVALUATION IN ENVIRONMENTAL CHEMISTRY.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ANALYTICAL CHEMISTRY; CHEMISTRY; *DATA ACQUISITION; *DATA QUALITY; *ENVIRONMENTAL CHEMISTRY; *GUIDELINES; *LABORATORY TECHNIQUES; *MEASUREMENT; RISKS; *SAMPLING; STANDARDS

DESCRIPTIVE NOTE: 2242-2249P.

ABSTRACT: THIS ARTICLE CONTAINS A SET OF GUIDELINES THAT WERE DEVELOPED UNDER THE AMERICAN CHEMICAL SOCIETY'S COMMITTEE ON ENVIRONMENTAL ANALYTICAL CHEMISTRY TO IMPROVE THE OVERALL QUALITY OF ENVIRONMENTAL ANALYTICAL MEASUREMENTS. THE GUIDELINES PROVIDE FOR DEVELOPMENT OF RELIABLE CHEMICAL ANALYSIS OF ENVIRONMENTAL SAMPLES AND ALLOW MORE CONFIDENT INTERLABORATORY USE OF THE DATA.

AVAILABILITY: ANALYTICAL CHEMISTRY, V52 N14

IRIS ACCESSION NUMBER: EW005802

PUBLICATION DATE: 80

TITLE: PRIORITY TOXIC POLLUTANTS. HEALTH IMPACTS AND ALLOWABLE LIMITS.

PERSONAL AUTHOR: SITTIG, MARSHALL

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ENVIRONMENTAL HEALTH; ECONOMICS; INDUSTRIAL POLLUTION; *PUBLIC HEALTH; *REGULATIONS; *STANDARDS; *TOXIC SUBSTANCES; *WATER POLLUTION CONTROL; WATER QUALITY

DESCRIPTIVE NOTE: 370P. PRICE: $54.00

ABSTRACT: THIS BOOK IS A PRACTICAL MANUAL OF PRIORTY TOXIC POLLUTANTS ARRANGED ALPHABETICALLY IN ENCYCLOPEDIC FORM. IT IS INTENDED TO PROVIDE INSTANT INFORMATION FOR THE CHARACTERIZATION AND IDENTIFICATION, AS WELL AS THE ALLOWABLE LEVELS, OF 65 PRIORITY TOXIC POLLUTANTS (ACTUALLY REFLECTING 129 INDIVIDUAL COMPOUNDS), THEIR DERIVATIVES, DEGRADATION PRODUCTS, OR INTERMEDIATE TRANSFERS

AVAILABILITY: NOYES DATA COPRORATION, PUBLICITY DEPARTMENT, MILL ROAD AT GRAND AVE., PARK RIDGE, NJ 07656

IRIS ACCESSION NUMBER: EW005803

PUBLICATION DATE: 78

TITLE: RECOMMENDED FOR STANDARDS FOR SEWAGE WORKS, 1978 EDITION.

DESCRIPTOR: *DESIGN; *ENGINEERING; *FACILITIES; *OPERATIONS (WASTEWATER); *STANDARDS; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 118P. PRICE: $1.75

ABSTRACT: THIS REPORT BY THE COMMITTEE OF THE GREAT LAKES - UPPER MISSISSIPPI RIVER BOARD OF STATE SANITARY ENGINEERS DEALS WITH POLICIES FOR THE REVIEW AND APPROVAL OF PLANS AND SPECIFICATIONS FOR SEWAGE COLLECTION AND TREATMENT. THE FOLLOWING TOPICS ARE DISCUSSED IN THE TEXT: ENGINEERING, SEWER DESIGN, SEWAGE PUMPING STATIONS, SEWAGE TREATMENT WORKS, SCREENING, SETTLING, SLUDGE HANDLING, BIOLOGICAL TREATMENT, DISINFECTION, LAGOONS AND SUPPLEMENTAL TREATMENT PROCESSES.

AVAILABILITY: HEALTH EDUCATION SERVICE, INC., P. O. BOX 7126, ALBANY, NY 12224

INSTITUTION NAME: GREAT LAKES - UPPER MISSISSIPPI RIVER BOARD OF STATE SANITARY ENGINEERS.

IRIS ACCESSION NUMBER: EW005804

PUBLICATION DATE: 76

TITLE: RECOMMENDED STANDARDS FOR WATER WORKS, 1976 EDITION.

DESCRIPTOR: *DESIGN; *FACILITIES; *PUBLIC WATER SUPPLIES; *PLANNING; *STANDARDS; *SPECIFICATIONS; *WATER TREATMENT; *WATER DISTRIBUTION; *WATER WORKS

DESCRIPTIVE NOTE: 104P. PRICE: $1.50

ABSTRACT: THIS REPORT BY THE COMMITTEE OF THE GREAT LAKES - UPPER MISSISSIPPI RIVER BOARD OF STATE SANITARY ENGINEERS DEALS WITH POLICIES FOR THE REVIEW AND APPROVAL OF PLANS AND SPECIFICATIONS FOR PUBLIC WATER SUPPLIES. IT DEALS WITH SUBMISSION OF PLANS, GENERAL DESIGN CONSIDERATIONS, SOURCE DEVELOPMENT, TREATMENT, CHEMICAL APPLICATION, PUMPING FACILITIES, FINISHED WATER STORAGE AND DISTRIBUTION SYSTEMS.

AVAILABILITY: HEALTH EDUCATION SERVICE, INC., P. O. BOX 71268 ALBANY, NY 12224

INSTITUTION NAME: GREAT LAKES - UPPER MISSISSIPPI RIVER BOARD OF STATE SANITARY ENGINEERS.

IRIS ACCESSION NUMBER: EW005805

PUBLICATION DATE: 80

TITLE: RECOMMENDED STANDARDS FOR INDIVIDUAL SEWAGE SYSTEMS, 1980 EDITION.

DESCRIPTOR: ABSORPTION SYSTEMS; DISCHARGING SYSTEM; *GREAT LAKES; *INDIVIDUAL SEWAGE SYSTEMS; *STANDARDS; *SEWAGE SYSTEMS; SITE EVALUATION; TREATMENT TANKS; *WASTEWATER TREATMENT; WASTE STABILIZATION LAGOONS

DESCRIPTIVE NOTE: 60P. PRICE: $1.50

ABSTRACT: THIS REPORT BY THE COMMITTEE OF THE GREAT LAKES - UPPER MISSISSIPPI RIVER BOARD OF STATE SANITARY ENGINEERS DEALS WITH POLICIES FOR THE REVIEW AND APPROVAL OF PLANS AND SPECIFICATIONS FOR INDIVIDUAL SEWAGE SYSTEMS. IT CONTAINS DISCUSSIONS AND EVALUATIONS OF SITE ANALYSIS, TREATMENT TANKS, HOUSE OR BUILDING SEWERS, ABSORPTION SYSTEMS, DISCHARGING SYSTEMS AND SINGLE RESIDENCE WASTE STABILIZATION LAGOONS.

AVAILABILITY: HEALTH EDUCATION SERVICE, INC., P. O. BOX 7126, ALBANY, NY 12224

INSTITUTION NAME: GREAT LAKES - UPPER MISSISSIPPI RIVER BOARD OF STATE SANITARY ENGINEERS.

IRIS ACCESSION NUMBER: EW005806

PUBLICATION DATE: 78

TITLE: RECOMMENDED STANDARDS FOR SWIMMING POOLS, 1978

EDITION.

DESCRIPTOR: *CONSTRUCTION; *DESIGN; FILTRATION; *PUBLIC SWIMMING POOLS; PLANNING; *STANDARDS; *SWIMMING POOLS; *SANITARY ENGINEERING; SAFETY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 32P. PRICE: $1.50

ABSTRACT: THIS MANUAL CONTAINS RECOMMENDED DESIGN AND CONSTRUCTION STANDARDS FOR PUBLIC SWIMMING POOLS WHICH WERE DEVISED BY THE GREAT LAKES - UPPER MISSISSIPPI RIVER BOARD OF STATE SANITARY ENGINEERS. IT CONTAINS INFORMATION ON PLANNING, CONSTRUCTION, DESIGN, SAFETY REQUIREMENTS, LIGHTING, ELECTRICITY, VENTILATION, ACOUSTICAL REQUIREMENTS, WATER SUPPLY, WASTEWATER DISPOSAL, RECIRCULATION SYSTEMS, FILTRATION, AND DISINFECTION

AVAILABILITY: HEALTH EDUCATION SERVICE, INC., P. O. BOX 7126, ALBANY, NY 12224

INSTITUTION NAME: GREAT LAKES - UPPER MISSISSIPPI RIVER BOARD OF STATE SANITARY ENGINEERS.

IRIS ACCESSION NUMBER: EW005807

TITLE: A SHOCKING STORY.

DESCRIPTOR: *ACCIDENT PREVENTION; *AUDIOVISUAL AIDS; *ELECTRICAL HAZARDS; ELECTRICAL SYSTEMS; *INDUSTRIAL SAFETY; *INSTRUCTIONAL MATERIALS; SAFETY; SAFETY EDUCATION

DESCRIPTIVE NOTE: 30 SLIDES, SCRIPT, CASSETTE. PRICE: MEMBER

ABSTRACT: THIS AUDIOVISUAL PACKAGE EXPLAINS ELECTRICAL SHOCKS AND HOW TO AVOID THEM.

AVAILABILITY: NATIONAL SAFETY COUNCIL, 444 NORTH MICHIGAN AVE., CHICAGO, IL 60611; TELEPHONE (312) 527-4800

IRIS ACCESSION NUMBER: EW005808

TITLE: LOCKOUT.

DESCRIPTOR: *ACCIDENT PREVENTION; *ELECTRICAL DEVICES; ELECTRICAL SYSTEMS; *INSTRUCTIONAL MATERIALS; *SAFETY; *SLIDES; *VISUAL AIDS

DESCRIPTIVE NOTE: 30P. SLIDES

ABSTRACT: THIS SET OF SLIDES ILLUSTRATES LOCKOUT SYSTEMS AND TELLS ABOUT TYPICAL DEVICES AND SAFEGUARDS USED.

AVAILABILITY: NATIONAL SAFETY COUNCIL, 444 NORTH MICHIGAN AVE., CHICAGO, IL 60611; TELEPHONE (312) 527-4800

IRIS ACCESSION NUMBER: EW005809

TITLE: FIRE PROTECTION GUIDE - MANUAL.

DESCRIPTOR: ACCIDENT PREVENTION; EQUIPMENT; *FIRE PROTECTION; HAZARDS; *INDUSTRIAL SAFETY; INSPECTIONS; *INSTRUCTIONAL MATERIALS; *PROGRAM GUIDES; *REFERENCE MATERIALS; *SAFETY

DESCRIPTIVE NOTE: 36P. PRICE: MEMBER: 1 EA - $7.10, 10 EA - $6.60, 100 EA - $5.90; NONMEMBER: 1 EA - $8.90, 10 EA - $8.30, 100 EA - $7.40

ABSTRACT: THIS REFERENCE MANUAL IS DESIGNED FOR DEVELOPING A FIRE PROTECTION PROGRAM. IT COVERS FIRE FIGHTING EQUIPMENT, INSPECTIONS, HAZARDS, AND OTHER FIRE SAFETY CONSIDERATIONS

AVAILABILITY: NATIONAL SAFETY COUNCIL, 444 NORTH MICHIGAN AVE., CHICAGO, IL 60611; TELEPHONE (312) 527-4800

IRIS ACCESSION NUMBER: EW005810

TITLE: MANUAL OF INSTRUCTION FOR WATER TREATMENT PLANT OPERATORS.

DESCRIPTOR: CHEMISTRY; CHLORINATION; FACILITIES; *INSTRUCTIONAL MATERIALS; LABORATORY TECHNIQUES; MAINTENANCE; MANUALS; MATHEMATICS; MICROBIOLOGY; *OPERATIONS (WATER); *TEACHING GUIDES; WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 308P. PRICE: $2.50 -SINGLE COPY, 15 OR MORE COPIES - $1.50 EACH

ABSTRACT: THIS TEXT WAS DESIGNED FOR USE IN INSTRUCTIONAL COURSES FOR WATER TREATMENT PLANT OPERATORS. IN ADDITION TO SERVING AS A TEXT, THE MANUAL SHOULD BE USEFUL AS A REFERENCE BY PERSONS INTERESTED IN THE FIELD OF WATER TREATMENT. CHAPTERS INCLUDE: WATER SOURCES AND WATER USES, HYDRAULICS AND ELECTRICITY, WATER CHEMISTRY, MICROBIOLOGY, WATER QUALITY, CHEMICAL COAGULATION, SEDIMENTATION, FILTRATION, CHLORINATION, SOFTENING, AERATION, IRON AND MANGANESE, TASTE AND ODOR CONTROL, CORROSION AND CORROSION CONTROL, FLUORIDATION, PROTECTION OF TREATED WATER, RECORDS AND REPORTS, TREATMENT PLANT MAINTENANCE AND ACCIDENT PREVENTION, MATHEMATICS, AND LABORATORY EXAMINATIONS OF WATER.

AVAILABILITY: HEALTH EDUCATION SERVICE, P. O. BOX 7126, ALBANY, NY 12224

IRIS ACCESSION NUMBER: EW005811

PUBLICATION DATE: 74

TITLE: HANDBOOK OF ENVIRONMENTAL CONTROL, VOLUME IV: WASTEWATER: TREATMENT AND DISPOSAL.

PERSONAL AUTHOR: BOND, RICHARD G.; STRAUB, CONRAD P.

DESCRIPTOR: *DATA; EUTROPHICATION; *HANDBOOKS; *INDUSTRIAL WASTES; LAKES; NUTRIENTS; RESEARCH REVIEWS; RIVERS; *SEWAGE; SLUDGE; *WASTEWATER; *WASTEWATER TREATMENT; *WASTEWATER DISPOSAL; WATER POLLUTION

DESCRIPTIVE NOTE: 905P. PRICE: $59.95

ABSTRACT: THIS HANDBOOK PRESENTS SELECT TABULAR DATA RELATING TO THE OVERALL PROBLEM OF WASTEWATER FROM SOURCE TO REUSE. THE DATA PRESENTED PROVIDE INFORMATION ON THE SOURCES, CHARACTERISTICS, FACTORS RELATING TO COLLECTION, QUANTITIES, AND METHODOLOGY FOR TREATMENT. THIS HANDBOOK IS PRIMARILY CONCERNED WITH THE EFFECTS OF THE VARIETY OF MATERIALS RELEASED ON THE SUBSEQUENT USE OF THE RECEIVING ENVIRONMENT - FROM THE STANDPOINT OF HEALTH AS WELL AS ECOLOGICAL CONTROL. THE INFORMATION COMPILED IN THIS VOLUME SHOULD BE OF USE TO THE MULTIDISCIPLINARY WORKER WITHIN THE BROAD SCOPE OF ENVIRONMENTAL MANAGEMENT: INCLUDING ECOLOGY, EARTH SCIENCES, ENGINEERING, RESOURCES, RECREATION, AND ENVIRONMENTAL DESIGN AND PROTECTION. THE FOUR MAJOR SECTIONS OF DATA ARE: DOMESTIC SEWAGE, INDUSTRIAL WASTES, RIVER WATERS: OXYGEN BALANCE, AND NUTRIENTS, LAKES, AND EUTROPHICATION.

AVAILABILITY: CRC PRESS, INC., 2000 NW 24TH STREET, BOCA RATON, FL 33431

IRIS ACCESSION NUMBER: EW005813

PUBLICATION DATE: 78

TITLE: THE RESOURCE CONSERVATION AND RECOVERY ACT.

DESCRIPTOR: *CONSERVATION; *ENERGY CONSERVATION; FINANCIAL ASSISTANCE; *FEDERAL LEGISLATION; FEDERAL REGULATIONS; *HAZARDOUS WASTES; *LEGISLATION; *MANAGEMENT; *PLANNING; *REGULATIONS; *RESOURCE RECOVERY; *RESOURCE CONSERVATION AND RECOVERY ACT; TECHNICAL ASSISTANCE; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 46P. GPO 624-568-1

ABSTRACT: THIS PAMPHLET CONTAINS THE FULL TRANSCRIPT OF THE 1976, RESOURCE CONSERVATION AND RECOVERY ACT. THE INTENTIONS OF THE ACT WERE TO PROVIDE TECHNICAL AND FINANCIAL ASSISTANCE FOR THE DEVELOPMENT OF MANAGEMENT PLANS AND FACILITIES FOR THE RECOVERY OF ENERGY AND OTHER RESOURCES FROM DISCARDED MATERIALS, FOR THE SAFE DISPOSAL OF DISCARDED MATERALS, AND TO REGULATE THE MANAGEMENT OF HAZARDOUS WASTE.

AVAILABILITY: U. S. ENVIRONMENTAL PROTECTION AGENCY, WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW005814

PUBLICATION DATE: JUL 79

TITLE: ON THE NEED TO EVALUATE OPERATIONAL WEATHER MODIFICATION PROJECTS.

PERSONAL AUTHOR: HUFF, F. A.; AND OTHERS

DESCRIPTOR: ASSESSMENT; CLOUD SEEDING; *EVALUATION METHODS; *METEOROLOGY; *OPERATION ANALYSIS; *PROJECT EVALUATION; *RESEARCH; *WATER RESOURCES; *WEATHER; *WEATHER MODIFICATION

DESCRIPTIVE NOTE: 5P. PRICE: $5.25

ABSTRACT: USE OF WEATHER MODIFICATION BY FARM GROUPS, STATE AGENCIES, AND POWER COMPANIES TO PERFORM OPERATIONAL PROJECTS CONTINUES TO EXPAND. THE MAJOR STAKEHOLDERS--THOSE PAYING, THOSE PERFORMING THE SEEDING, AND THE SCIENTIFIC COMMUNITY-HAVE ALL CONVERGED ON THE NEED TO EVALUATE OPERATIONAL PROJECTS. MAJOR ASSESSMENTS OF THE NATIONAL SITUATION HAVE RECOMMENDED THAT CAREFULLY CONDUCTED OPERATIONAL PROJECTS CAN BE A SOURCE OF USEFUL SCIENTIFIC INFORMATION IF DESIGNED, OPERATED, AND EVALUATED PROPERLY. A PROJECT HAS BEEN LAUNCHED TO DEVELOP STATISTICAL-PHYSICAL EVALUATION TECHNIQUES FOR OPERATIONAL PROJECTS.

AVAILABILITY: ILLINOIS STATE WATER SURVEY, URBANA, IL 61801

IRIS ACCESSION NUMBER: EW005815

PUBLICATION DATE: 80

TITLE: SLUDGE--HEALTH RISKS OF LAND APPLICATION.

PERSONAL AUTHOR: BITTON, G.; AND OTHERS

DESCRIPTOR: AGRICULTURE; *HEALTH RISKS; *LAND APPLICATION; *MUNICIPALITIES; MICROBIOLOGY; OCCUPATIONAL HAZARDS; *PUBLIC HEALTH, PARASITES; PATHOGENS; REGULATIONS; *SLUDGE; TOXIC METALS; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 367P. PRICE: $37.50

ABSTRACT: THESE PROCEEDINGS REPRESENT AN ASSESSMENT OF THE HEALTH RISKS ASSOCIATED WITH ANIMAL FEEDING AND/OR LAND APPLICATION OF MUNICIPAL SLUDGE. THE PAPERS DEAL WITH FOUR SPECIFIC TOPICS: HEALTH RISKS ASSOCIATED WITH SPECIFIC AGENTS IN MUNICIPAL SLUDGE, HEALTH RISKS ASSOCIATED WITH USING MUNICIPAL SLUDGE FOR PRODUCTION OF FOOD CHAIN SUBSTANCES, OCCUPATIONAL HAZARDS ASSOCIATED WITH MUNICIPAL SLUDGE AND MAJOR FINDINGS FROM THREE SLUDGE PROJECTS

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS, INC., P. O. BOX 1425, ANN ARBOR, MI 48106

IRIS ACCESSION NUMBER: EW005816

PUBLICATION DATE: NOV 80

TITLE: GROUNDWATER PROTECTION.

PERSONAL AUTHOR: DAVIS, JOSEPH A., EDITOR; SPEICHER, KENN, ASSOCIATE EDITOR

DESCRIPTOR: CASE STUDIES; *DRINKING WATER; *GROUNDWATER; HAZARDOUS WASTES; *HYDROLOGY; *MANAGEMENT; PLANNING; *POLLUTION CONTROL; RESOURCE RECOVERY; SOLID WASTES; *WATER

RESOURCES; WASTE DISPOSAL; *WATER POLLUTION CONTROL; *WATER QUALITY

DESCRIPTIVE NOTE: 36P.

ABSTRACT: THIS WATER QUALITY MANAGEMENT REPORT DISCUSSES THE VARIOUS ASPECTS OF GROUNDWATER PROTECTION, IDENTIFIES THE MOST SIGNIFICANT THREATS TO GROUNDWATER QUALITY, AND EXAMINES SOME OF THE MAJOR TOOLS, THAT WATER QUALITY MANAGEMENT PERSONNEL HAVE TO WORK WITH. AMONG THE TOPICS DISCUSSED ARE: THE AVAILABILITY AND QUALITY OF U.S. GROUNDWATER, SOLID AND HAZARDOUS WASTES, THE RESOURCE CONSERVATION AND RECOVERY ACT, TRICHLOROETHYLENE, ONSITE WASTEWATER DISPOSAL SYSTEMS, GROUNDWATER PROTECTION PROGRAMS, AND THE FUTURE OF U.S. GROUNDWATER.

AVAILABILITY: WOM REPORTS, ENVIRONMENTAL PROTECTION AGENCY, 401 M STREET, SW, WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW005818

PUBLICATION DATE: 78

TITLE: THE USE OF HIGH-PURITY OXYGEN IN THE ACTIVATED SLUDGE PROCESS, VOLUME II.

PERSONAL AUTHOR: MCWHIRTER, J. R., EDITOR

DESCRIPTOR: *ACTIVATED SLUDGE; DESIGN CONSIDERATIONS; *OPERATIONS (WASTEWATER); OXYGENATION EQUIPMENT; *OXYGEN; PURFICATION; POLLUTION CONTROL TECHNOLOGY; SEWAGE; *SLUDGE; *WATER POLLUTION CONTROL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 292P. PRICE: $59.95; OUTSIDE US $68.95, CATALOG NO. 5102EA

ABSTRACT: THIS VOLUME DEALS WITH WATER POLLUTION CONTROL TECHNOLOGY AND CONTAINS A COMPREHENSIVE STATE-OF-THE ART REPORT ON THE USE OF PURIFIED OXYGEN IN THE ACTIVATED SLUDGE WASTEWATER TREATMENT PROCESS. IT IS INTENDED TO ACT AS A REFERENCE MANUAL FOR DESIGN ENGINEERS, PLANNERS, AND MANAGERS IN INDUSTRY AND GOVERNMENT

AVAILABILITY: CRC PRESS, INC., 2000 NW 24TH STREET, BACA RATON, FL 33431

IRIS ACCESSION NUMBER: EW005827

TITLE: MANUAL OF INSTRUCTION FOR WASTEWATER TREATMENT PLANT OPERATORS, VOLUMES I AND II.

DESCRIPTOR: BIOLOGY; CHEMISTRY; DISINFECTION; HYDRAULICS; INDUSTRIAL WASTES; *INSTRUCTIONAL MATERIALS; MAINTENANCE; MANUALS; *OPERATIONS (WASTEWATER); SAFETY; SAMPLING; SOLID WASTES; TESTING; *TEXTBOOKS; WASTEWATER DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 250P. PRICE: $2.00 PER COPY; 15 OR MORE COPIES $1.50 EACH

ABSTRACT: THIS MANUAL OFFERS WASTEWATER TREATMENT PLANT OPERATORS AND STUDENTS A SINGLE, COMPACT REFERENCE TO THE VARIOUS TOPICS. TABLES, FIGURES, AND A LIST OF REFERENCES ACCOMPANY THE DISCUSSION IN EACH CHAPTER TITLES ARE: WASTEWATER, WASTEWATER TREATMENT METHODS AND DISPOSAL, PRELIMINARY TREATMENT, PRIMARY TREATMENT, SECONDARY TREATMENT, DISINFECTION OF WASTEWATER, SOLIDS HANDLING AND DISPOSAL, INDUSTRIAL WASTEWATERS, ADVANCED WASTEWATER TREATMENT, SAMPLING AND TESTING PROCEDURES, RECORDS AND REPORTS, MAINTENANCE OF PLANT AND EQUIPMENT, TREATMENT PLANT SAFETY, HYDRAULICS AND ELECTRICITY, CHEMISTRY, AND BIOLOGY/MICROBIOLOGY.

AVAILABILITY: HEALTH EDUCATION SERVICE, INC., P.O. BOX 7126, ALBANY, NY 12224

IRIS ACCESSION NUMBER: EW005828

PUBLICATION DATE: DEC 80

TITLE: EXPLORE THE BENEFITS OF DISTRIBUTED CONTROL.

PERSONAL AUTHOR: KAISER, CHARLES B., JR.; SHIFRIN, WALTER G.

DESCRIPTOR: *AUTOMATION; *DISTRIBUTED CONTROL; *FACILITIES; *INSTRUMENTATION; INDUSTRIAL WASTES; MUNICIPALITIES; *OPERATIONS (WASTEWATER); *SEWAGE; ULITITES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 14-17P.

ABSTRACT: THIS ARTICLE DESCRIBES THE MULTISTAGE EXPANSION OF A SEWAGE TREATMENT PLANT IN ST. LOUIS. AUTOMATION WAS CONSIDERED ESSENTIAL, AND AFTER CONSIDERING THE ALTERNATIVES, A DISTRIBUTED CONTROL SYSTEM WAS CHOSEN DUE TO ITS FLEXIBILITY AND OPERATING EASE.

AVAILABILITY: WATER & WASTES ENGINEERING, V17 N12

IRIS ACCESSION NUMBER: EW005829

PUBLICATION DATE: DEC 80

TITLE: COMPARE NITRATE REMOVAL METHODS.

PERSONAL AUTHOR: SORG, THOMAS J.

DESCRIPTOR: AGRICULTURE; *CONTAMINATION; COST EFFECTIVENESS; ECONOMICS; GROUNDWATER; ION EXCHANGE; *NITRATES; POLLUTION; *WATER TREATMENT; WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 26-31P.

ABSTRACT: THIS ARTICLE ANALYZES THE COST EFFECTIVENESS AND EFFICIENCY OF PHYSICAL, BIOLOGICAL AND CHEMICAL METHODS FOR TREATING NITRATE-CONTAMINATED GROUNDWATER. THE AUTHOR CONCLUDES THAT FOR SOME COMMUNITIES ION EXCHANGE MAY BE THE MOST ECONOMICAL, PRACTICAL METHOD FOR DEALING WITH NITRATE

POLLUTED WATERS.

AVAILABILITY: WATER 8 WASTES ENGINEERING, V17 N12

IRIS ACCESSION NUMBER: EW005830

PUBLICATION DATE: DEC 80

TITLE: STORM SEWER REDESIGN ADDS CAPACITY.

PERSONAL AUTHOR: PETTIT, C. GENE

DESCRIPTOR: *DESIGN; *MODELS; *STORM SEWERS; *SEWERS; *STORM RUNOFF; *WATER COLLECTION; *WATER RESOURCES

DESCRIPTIVE NOTE: 32-33P.

ABSTRACT: THE PERMARS RUN ENCLOSURE IN STEUBENVILLE, OHIO, WAS ORGINALLY DESIGNED FOR A 25 YEAR FREQUENCY STORM. WHEN REGULATION REQUIRED IT TO CONTAIN A 100 YEAR STORM, SEVERAL DESIGN CHANGES WERE NEEDED. THIS ARTICLE DEALS WITH THE DESIGN PROBLEMS WHICH WERE ENCOUNTERED AND THE FINAL REDESIGN OF THE STORM SEWER.

AVAILABILITY: WATER 8 WASTES ENGINEERING, V17 N12

IRIS ACCESSION NUMBER: EW005831

PUBLICATION DATE: DEC 80

TITLE: TRACE ANALYSIS OF ENVIRONMENTAL POLLUTANTS.

PERSONAL AUTHOR: MILLER, STANTON

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICAL ANALYSIS; CHEMISTRY; *DATA COLLECTION; *DATA EVALUATION; ENVIRONMENT; *GUIDELINES; MEASUREMENTS; POLLUTANTS; QUALITY CONTROL; *RESEARCH REPORTS; TRACE ANALYSIS

DESCRIPTIVE NOTE: 1434P.

ABSTRACT: THIS ARTICLE REPORTS ON A STUDY COMPLETED BY THE AMERICAN CHEMICAL SOCIETY COMMITTEE ON ENVIRONMENTAL IMPROVEMENT. THE STUDY, "GUIDELINES FOR DATA ACQUISITION AND DATA QUALITY EVALUATION IN ENVIRONMENTAL CHEMISTRY", WAS CONDUCTED TO PROVIDE GUIDANCE IN DEVELOPING RELIABLE CHEMICAL ANALYSIS OF ENVIRONMENTAL SAMPLES AND ALLOW MORE CONFIDENT INTERLABORATORY USE OF THE DATA

AVAILABILITY: ENVIRONMENTAL SCIENCE 8 TECHNOLOGY, V14 N12

IRIS ACCESSION NUMBER: EW005832

PUBLICATION DATE: DEC 80

TITLE: ANALYTICAL ISSUES IN COMPLIANCE MONITORING.

PERSONAL AUTHOR: RICE, JAMES K.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; COMPLIANCE; *ENVIRONMENTAL PROTECTION AGENCY; *ENVIRONMENTAL REGULATIONS; *EVALUATION; LABORATORY TECHNIQUES; MATHEMATICS; *MONITORING; POLLUTANTS; *REGULATIONS; SAMPLING; *STANDARDS

DESCRIPTIVE NOTE: 1455-1457P.

ABSTRACT: THIS ARTICLE CONTENDS THAT THE EPA'S METHODS FOR VERIFYING THE ADHERENCE OF A WATER DISCHARGER TO THE TERMS OF HIS PERMIT DO NOT ENSURE ACCURATE RESULTS. SOME MODIFICATIONS ARE SUGGESTED FOR REMEDYING THIS SITUATION. IN ADDITION, A REACTION BY THE EPA TO THIS CLAIM IS INCLUDED

AVAILABILITY: ENVIRONMENTAL SCIENCE 8 TECHNOLOGY, V14 N12

IRIS ACCESSION NUMBER: EW005833

PUBLICATION DATE: 79

TITLE: SAFE WATER. A FACT BOOK ON THE SAFE DRINKING WATER ACT FOR NON-COMMUNITY WATER SYSTEMS.

DESCRIPTOR: BACTERIA; *DRINKING WATER; *GUIDES; LABORATORY PROCEDURES; MANAGEMENT; MONITORING; NITRATES; PUBLIC HEALTH; *RECORD KEEPING; *SAFE DRINKING WATER ACT; SAMPLING; *TESTING; TURBIDITY; *WATER SUPPLY; *WATER QUALITY

DESCRIPTIVE NOTE: 42P. PRICE:

ABSTRACT: THIS PUBLICATION HAS BEEN PREPARED TO PROVIDE INFORMATION ON THE SAFE DRINKING WATER ACT TO PERSONS RESPONSIBLE FOR THE MANAGEMENT OR OPERATION OF INDUSTRIAL FIRMS, BUSINESS ESTABLISHMENTS, OR OTHER PUBLIC ACCOMMODATIONS THAT HAVE THEIR OWN DRINKING WATER SUPPLIES AND ARE CLASSIFIED AS NON-COMMUNITY WATER SYSTEMS. THE MATERIAL DISCUSSES THE MONITORING REQUIRED TO ENSURE THAT SAFE WATER IS BEING PROVIDED TO EMPLOYEES AND THE PUBLIC. SAMPLING, TESTING, AND RECORED-KEEPING PROCEDURES ARE COVERED FOR BACTERIA, NITRATE, AND TURBIDITY.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION, 6666 QUINCY AVENUE, DENVER, CO 80235

IRIS ACCESSION NUMBER: EW005837

PUBLICATION DATE: DEC 80

TITLE: RECENT DEVELOPMENTS IN FILTRATION SYSTEM DESIGN.

PERSONAL AUTHOR: TRUSSELL, R. RHODES; AND OTHERS

DESCRIPTOR: *DESIGN; *EFFICIENCY; EFFLUENTS; FILTERS; *FILTRATION; *OPERATIONS (WASTEWATER); *PERFORMANCE CRITERIA; RESEARCH; TECHNOLOGICAL ADVANCEMENTS; TURBIDITY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 705-710P.

ABSTRACT: THE TRADITIONAL MEASURE USED BY TREATMENT PLANT

OPERATORS AND DESIGNERS FOR EVALUATING THE OVERALL EFFICIENCY OF A WATER FILTRATION OPERATION HAS BEEN THE LENGTH OF A FILTER RUN. A LOOK AT RECENT FILTER DESIGN DEVELOPMENTS REVEALS THAT FILTRATION RATE AND BACKWASH VOLUME ARE ALSO ESSENTIAL CONSIDERATIONS FOR GAUGING FILTER PRODUCTIVITY. DATA HAVE BEEN ACCUMULATED THAT SUGGEST THAT ON-OFF CYCLES FOR FILTRATION OPERATIONS USUALLY RESULT IN A SHORT-TERM DEGRADATION IN EFFLUENT QUALITY AND THAT RATES IN EXCESS OF THOSE CONVENTIONALLY EMPLOYED CAN BE USED WITHOUT ADVERSE EFFECTS ON THE PROCESS OF FILTRATION

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V72 N12

IRIS ACCESSION NUMBER: EW005844

PUBLICATION DATE: NOV 80

TITLE: ENERGY CONSERVATION UNITS REPLACE OIL AT SOUTHERLY WASTEWATER TREATMENT CENTER.

PERSONAL AUTHOR: STANKUNAS, JOHN J.

DESCRIPTOR: COST EFFECTIVENESS; DESIGN; *ENERGY CONSERVATION; *ENERGY; *FACILITIES; HEAT PUMPS; INCINERATORS; *SLUDGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 26-27,56-68P.

ABSTRACT: THIS ARTICLE DESCRIBES THE ENERGY CONSERVATION MEASURES WHICH WERE BUILT INTO THE UPGRADING AND EXPANSION OF CLEVELAND'S SOUTHERLY WASTEWATER TREATMENT CENTER. THE FOUR DESIGN COMPONENTS ARE: (1) USING HEAT PUMPS TO GENERATE BUILDING HEAT FROM PLANT EFFLUENT; (2) USING ENERGY WHEELS TO GENERATE BUILDING HEAT FROM BUILDING EXHAUST AIR; (3) PROCESSING STEAM FOR SLUDGE CONDITIONING FROM INCERATOR WASTE-HEAT RECOVERY; AND (4) PROCESSING STEAM FOR SLUDGE CONDITIONING FROM SKIMMININGS-FIRED BOILERS.

AVAILABILITY: WATER 8 SEWAGE WORKS, V127 N11

IRIS ACCESSION NUMBER: EW005845

PUBLICATION DATE: NOV 80

TITLE: SOLIDS-CONTACT CLARIFICATION BRINGS OUT BEST OF TRICKLING FILTERS.

PERSONAL AUTHOR: NORRIS DAN F.

DESCRIPTOR: *CLARIFICATION; COST EFFECTIVENESS; ENERGY CONSERVATION; EFFICIENCY; *OPERATIONS (WASTEWATER); *PILOT TESTS; *SOLIDS CONTACT CLARIFICATION; *SLUDGE; *TRICKLING FILTERS; *WASTEWATER TREATMENT; WASTE DISPOSAL

DESCRIPTIVE NOTE: 28-29,59-60P.

ABSTRACT: THIS ARTICLE DESCRIBES PLANT-SCALE TESTS AT CORVALLIS, OREGON WHICH INVESTIGATED THE POTENTIAL OF USING TRICKLING FILTERS PLUS SOLIDS CONTACT CLARIFICATION IN WASTEWATER TREATMENT. THE RESULTS INDICATE THAT THE PROCESS IS EXCEPTIONALLY STABLE AND REQUIRES FAR LESS ENERGY EQUIPMENT, ELECTRICAL CONTROL, AND OPERATOR ATTENTION THAN THAT FOR ACTIVATED SLUDGE, WHILE PRODUCING A DENSE SLUDGE THAT IS REMOVABLE IN THE PRIMARY CLARIFIERS WITHOUT SEPARATE THICKENING.

AVAILABILITY: WATER 8 SEWAGE WORKS, V127 N11

IRIS ACCESSION NUMBER: EW005846

PUBLICATION DATE: NOV 80

TITLE: LOS ANGELES TO MEET REGS WITH ENERGY-MISER SLUDGE PROCESSOR.

PERSONAL AUTHOR: TILLMAN, DONALD C.

DESCRIPTOR: *COST EFFECTIVENESS; *ENERGY CONSERVATION; *OPERATIONS (WASTEWATER); *REGULATIONS; RESOURCE RECOVERY; *SLUDGE; *THERMAL SLUDGE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 30-32,62P.

ABSTRACT: THIS ARTICLE DESCRIBES AN INNOVATIVE LOW-COST, LOW-ENERGY CONSUMING METHOD OF SLUDGE TREATMENT THAT HAS BEEN CHOSEN BY THE CITY OF LOS ANGELES FOR ITS HYPERION PLANT. THE SYSTEM (CALLED THERMAL SLUDGE DISPOSAL) INVOLVES THE THERMAL EVAPORATION OF THE SLUDGE WATER BY HEAT EXCHANGE AND THE THERMAL DESTRUCTION OF SLUDGE SOLIDS BY PYROLYSIS.

AVAILABILITY: WATER 8 SEWAGE WORKS, V127 N11

IRIS ACCESSION NUMBER: EW005847

PUBLICATION DATE: NOV 80

TITLE: PROCESSES--NOT PRODUCTS--BIGGEST ENERGY-SAVING FACTORS.

DESCRIPTOR: ENERGY; *ENERGY CONSERVATION; *EFFICIENCY; *EQUIPMENT; *OPERATIONS (WASTEWATER); *SYSTEMS ANALYSIS; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 43,62P.

ABSTRACT: THIS ARTICLE STRESSES HOW ENERGY CONSERVATION MEASURES ARE OFTEN MISMANAGED IN THE WATER AND WASTEWATER TREATMENT INDUSTRY. THE MAIN PROBLEM CITED IS THAT ENERGY CONSERVATION SYSTEMS ARE OFTEN DESIGNED AROUND EFFICIENT EQUIPMENT THAT WORKS INEFFICIENTLY AS A SYSTEM.

AVAILABILITY: WATER 8 SEWAGE WORKS, V127 N11

IRIS ACCESSION NUMBER: EW005848

PUBLICATION DATE: NOV 80

TITLE: DIGESTER METHANE UTILIZATION CAN BE OPTIMIZED.

PERSONAL AUTHOR: BAUMANN, PETER G.

DESCRIPTOR: *DIGESTER GAS; DESIGN; *ENERGY CONSERVATION; *HEAT RECOVERY; *METHANE; *OPERATIONS (WASTEWATER); PLANNING; *RESOURCE RECOVERY; *RECYCLING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 44-45,66-68P.

ABSTRACT: THE EXPENSE OF EXPLOITING DIGESTER GAS AS AN ENERGY SOURCE NOW CAN BE JUSTIFIED ESPECIALLY IF DIGESTER HEATING REQUIREMENTS ARE REDUCED. IN THE PAST, THE GAS WAS SEEN AS A FREE FUEL SOURCE AND LITTLE EFFORT WAS MADE TO REDUCE THE ENERGY REQUIRED FOR DIGESTER HEATING. THE SMALL AMOUNT OF GAS AVAILABLE AFTER MEETING THE DIGESTER HEATING REQUIREMENTS WASN'T WORTH EXPLOITING AND WAS BURNED TO THE ATMOSPHERE. HOWEVER, NOW SOUND PLANNING IN THE EARLY PHASE OF THE DESIGN CAN OPTIMIZE DIGESTER GAS.

AVAILABILITY: WATER 8 SEWAGE WORKS, V127 N11

IRIS ACCESSION NUMBER: EW005849

PUBLICATION DATE: NOV 80

TITLE: ENERGY SAVINGS CAN FIT YOUR BUDGET.

PERSONAL AUTHOR: SAXON, TREVOR

DESCRIPTOR: *BUDGETS; *DESIGN; *ENERGY CONSERVATION; *FACILITIES; *OPERATIONS (WASTEWATER); *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 46-48P.

ABSTRACT: THIS ARTICLE CONTAINS DESCRIPTIONS OF POSSIBLE ENERGY CONSERVATION MEASURES AT WASTEWATER TREATMENT PLANTS. THE ENERGY-SAVING TECHNIQUES ARE SUB-DIVIDED UNDER THREE HEADINGS: (1) NO COST; (2) LOW CAPITAL COST; AND (3) LARGE CAPITAL COST. ALL THREE CATEGORIES INVOLVE MODIFICATION OF TREATMENT PROCESSES, ARCHITECTURAL DESIGN AND HEATING, VENTILATING, AIR CONDITIONING AND ELECTRICAL SYSTEMS.

AVAILABILITY: WATER 8 SEWAGE WORKS, V127 N11

IRIS ACCESSION NUMBER: EW005850

PUBLICATION DATE: NOV 80

TITLE: SELECTING PIPELINES TO ACHIEVE EFFECTIVE ENERGY CONSERVATION.

PERSONAL AUTHOR: REID, T. ANTHONY

DESCRIPTOR: *DESIGN; *ENERGY CONSERVATION; *ENGINEERING; *ENERGY; *PIPES; *PIPELINES; *PLANNING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 53-54,64-65,74P.

ABSTRACT: THE RAPID INCREASE IN THE COST OF ENERGY IN RECENT YEARS JUSTIFIES A MORE RIGOROUS PROCEDURE FOR SELECTING PIPELINES BASED ON THE TOTAL ENERGY REQUIREMENTS OVER THE LIFE OF THE PIPELINE. THIS PAPER PRESENTS AN APPROPRIATE MATHEMATICAL PROCEDURE.

AVAILABILITY: WATER 8 SEWAGE WORKS, V127 N11

IRIS ACCESSION NUMBER: EW005851

PUBLICATION DATE: 78

TITLE: DISPOSAL AND DECONTAMINATION OF PESTICIDES.

PERSONAL AUTHOR: KENNEDY, MAURICE V.

DESCRIPTOR: CHEMICALS; *DECONTAMINATION; DETOXIFICATION; HAZARDOUS WASTES; *PESTICIDE DISPOSAL; PHOTODECOMPOSITON; RESEARCH; TECHNOLOGY; *WASTE PESTICIDES

DESCRIPTIVE NOTE: 158P. PRICE: $20.00

ABSTRACT: THE PAPERS IN THIS VOLUME RELATE TO SEVERAL METHODS FOR THE DISPOSAL OF PESTICIDES. TOPICS INCLUDE THE PHOTOCHEMICAL DESTRUCTION OF CHLORODIOXINS AND HALOGENATED XANTHENE DYES, THE MICROWAVE PLASMA PROCESS, AND CATALYTIC HYDRODECHLORINATION AS WELL AS PYROYLYSIS OF MIREX RESIDUES AND DIELDRIN ELIMINATION. THIS BOOK ALSO PRESENTS A STATE-OF-THE ART REPORT ON PESTICIDE DISPOSAL RESEARCH AND INFORMATION ON THE DEVELOPING TECHNOLOGY FOR DETOXIFICATION OF PESTICIDES AND OTHER UNWANTED HAZARDOUS MATERIAL.

AVAILABILITY: AMERICAN CHEMICAL SOCIETY, 1155 SIXTEENTH STREET, NW, WASHINGTON, DC 20036

IRIS ACCESSION NUMBER: EW005852

PUBLICATION DATE: 79

TITLE: ENERGY CONSERVATION AT WASTEWATER TREATMENT PLANTS.

DESCRIPTOR: CASE STUDIES; *ENERGY CONSERVATION; *ENERGY; ECONOMICS; *FACILITIES; *MAINTENANCE; *MANAGEMENT; OPERATIONS (WASTEWATER); PLANNING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 23P. PRICE: $4.00

ABSTRACT: THIS PUBLICATION ENCOURAGES ENERGY CONSERVATION IN THE OPERATION, MAINTENANCE, AND MANAGEMENT OF WASTEWATER TREATMENT PLANTS. IT AIMS TO MAKE SUPERVISORS, OPERATORS, AND ENGINEERS AWARE OF THE OPPORTUNITIES FOR CONSERVING ENERGY, OUTLINE A PROGRAM FOR IDENTIFYING AND PURSUING CONSERVATION OPPORTUNITIES, AND PROVIDE SPECIFIC RELEVANT EXAMPLES OF CONSERVATION PRACTICES.

OPERATORS AND DESIGNERS FOR EVALUATING THE OVERALL EFFICIENCY OF A WATER FILTRATION OPERATION HAS BEEN THE LENGTH OF A FILTER RUN. A LOOK AT RECENT FILTER DESIGN DEVELOPMENTS REVEALS THAT FILTRATION RATE AND BACKWASH VOLUME ARE ALSO ESSENTIAL CONSIDERATIONS FOR GAUGING FILTER PRODUCTIVITY. DATA HAVE BEEN ACCUMULATED THAT SUGGEST THAT ON-OFF CYCLES FOR FILTRATION OPERATIONS USUALLY RESULT IN A SHORT-TERM DEGRADATION IN EFFLUENT QUALITY AND THAT RATES IN EXCESS OF THOSE CONVENTIONALLY EMPLOYED CAN BE USED WITHOUT ADVERSE EFFECTS ON THE PROCESS OF FILTRATION

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V72 N12

IRIS ACCESSION NUMBER: EW005844

PUBLICATION DATE: NOV 80

TITLE: ENERGY CONSERVATION UNITS REPLACE OIL AT SOUTHERLY WASTEWATER TREATMENT CENTER.

PERSONAL AUTHOR: STANKUNAS, JOHN J.

DESCRIPTOR: COST EFFECTIVENESS; DESIGN; *ENERGY CONSERVATION; *ENERGY; *FACILITIES; HEAT PUMPS; INCINERATORS; *SLUDGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 26-27,56-68P.

ABSTRACT: THIS ARTICLE DESCRIBES THE ENERGY CONSERVATION MEASURES WHICH WERE BUILT INTO THE UPGRADING AND EXPANSION OF CLEVELAND'S SOUTHERLY WASTEWATER TREATMENT CENTER. THE FOUR DESIGN COMPONENTS ARE: (1) USING HEAT PUMPS TO GENERATE BUILDING HEAT FROM PLANT EFFLUENT; (2) USING ENERGY WHEELS TO GENERATE BUILDING HEAT FROM BUILDING EXHAUST AIR; (3) PROCESSING STEAM FOR SLUDGE CONDITIONING FROM INCERATOR WASTE-HEAT RECOVERY; AND (4) PROCESSING STEAM FOR SLUDGE CONDITIONING FROM SKIMMININGS-FIRED BOILERS.

AVAILABILITY: WATER & SEWAGE WORKS, V127 N11

IRIS ACCESSION NUMBER: EW005845

PUBLICATION DATE: NOV 80

TITLE: SOLIDS-CONTACT CLARIFICATION BRINGS OUT BEST OF TRICKLING FILTERS.

PERSONAL AUTHOR: NORRIS DAN F.

DESCRIPTOR: *CLARIFICATION; COST EFFECTIVENESS; ENERGY CONSERVATION; EFFICIENCY; *OPERATIONS (WASTEWATER); *PILOT TESTS; *SOLIDS CONTACT CLARIFICATION; *SLUDGE; *TRICKLING FILTERS; *WASTEWATER TREATMENT; WASTE DISPOSAL

DESCRIPTIVE NOTE: 28-29,59-60P.

ABSTRACT: THIS ARTICLE DESCRIBES PLANT-SCALE TESTS AT CORVALLIS, OREGON WHICH INVESTIGATED THE POTENTIAL OF USING TRICKLING FILTERS PLUS SOLIDS CONTACT CLARIFICATION IN WASTEWATER TREATMENT. THE RESULTS INDICATE THAT THE PROCESS IS EXCEPTIONALLY STABLE AND REQUIRES FAR LESS ENERGY EQUIPMENT, ELECTRICAL CONTROL, AND OPERATOR ATTENTION THAN THAT FOR ACTIVATED SLUDGE, WHILE PRODUCING A DENSE SLUDGE THAT IS REMOVABLE IN THE PRIMARY CLARIFIERS WITHOUT SEPARATE THICKENING.

AVAILABILITY: WATER & SEWAGE WORKS, V127 N11

IRIS ACCESSION NUMBER: EW005846

PUBLICATION DATE: NOV 80

TITLE: LOS ANGELES TO MEET REGS WITH ENERGY-MISER SLUDGE PROCESSOR.

PERSONAL AUTHOR: TILLMAN, DONALD C.

DESCRIPTOR: *COST EFFECTIVENESS; *ENERGY CONSERVATION; *OPERATIONS (WASTEWATER); *REGULATIONS; RESOURCE RECOVERY; *SLUDGE; *THERMAL SLUDGE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 30-32,62P.

ABSTRACT: THIS ARTICLE DESCRIBES AN INNOVATIVE LOW-COST, LOW-ENERGY CONSUMING METHOD OF SLUDGE TREATMENT THAT HAS BEEN CHOSEN BY THE CITY OF LOS ANGELES FOR ITS HYPERIOR PLANT. THE SYSTEM (CALLED THERMAL SLUDGE DISPOSAL) INVOLVES THE THERMAL EVAPORATION OF THE SLUDGE WATER BY HEAT EXCHANGE AND THE THERMAL DESTRUCTION OF SLUDGE SOLIDS BY PYROLYSIS.

AVAILABILITY: WATER & SEWAGE WORKS, V127 N11

IRIS ACCESSION NUMBER: EW005847

PUBLICATION DATE: NOV 80

TITLE: PROCESSES--NOT PRODUCTS--BIGGEST ENERGY-SAVING FACTORS.

DESCRIPTOR: ENERGY; *ENERGY CONSERVATION; *EFFICIENCY; *EQUIPMENT; *OPERATIONS (WASTEWATER); *SYSTEMS ANALYSIS; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 43,62P.

ABSTRACT: THIS ARTICLE STRESSES HOW ENERGY CONSERVATION MEASURES ARE OFTEN MISMANAGED IN THE WATER AND WASTEWATER TREATMENT INDUSTRY. THE MAIN PROBLEM CITED IS THAT ENERGY CONSERVATION SYSTEMS ARE OFTEN DESIGNED AROUND EFFICIENT EQUIPMENT THAT WORKS INEFFICIENTLY AS A SYSTEM.

AVAILABILITY: WATER & SEWAGE WORKS, V127 N11

IRIS ACCESSION NUMBER: EW005848

PUBLICATION DATE: NOV 80

TITLE: DIGESTER METHANE UTILIZATION CAN BE OPTIMIZED.

PERSONAL AUTHOR: BAUMANN, PETER G.

DESCRIPTOR: *DIGESTER GAS; DESIGN; *ENERGY CONSERVATION; *HEAT RECOVERY; *METHANE; *OPERATIONS (WASTEWATER); PLANNING; *RESOURCE RECOVERY; *RECYCLING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 44-45,66-68P.

ABSTRACT: THE EXPENSE OF EXPLOITING DIGESTER GAS AS AN ENERGY SOURCE NOW CAN BE JUSTIFIED ESPECIALLY IF DIGESTER HEATING REQUIREMENTS ARE REDUCED. IN THE PAST, THE GAS WAS SEEN AS A FREE FUEL SOURCE AND LITTLE EFFORT WAS MADE TO REDUCE THE ENERGY REQUIRED FOR DIGESTER HEATING. THE SMALL AMOUNT OF GAS AVAILABLE AFTER MEETING THE DIGESTER HEATING REQUIREMENTS WASN'T WORTH EXPLOITING AND WAS BURNED TO THE ATMOSPHERE. HOWEVER, NOW SOUND PLANNING IN THE EARLY PHASE OF THE DESIGN CAN OPTIMIZE DIGESTER GAS.

AVAILABILITY: WATER 8 SEWAGE WORKS, V127 N11

IRIS ACCESSION NUMBER: EW005849

PUBLICATION DATE: NOV 80

TITLE: ENERGY SAVINGS CAN FIT YOUR BUDGET.

PERSONAL AUTHOR: SAXON, TREVOR

DESCRIPTOR: *BUDGETS; *DESIGN; *ENERGY CONSERVATION; *FACILITIES; *OPERATIONS (WASTEWATER); *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 46-48P.

ABSTRACT: THIS ARTICLE CONTAINS DESCRIPTIONS OF POSSIBLE ENERGY CONSERVATION MEASURES AT WASTEWATER TREATMENT PLANTS. THE ENERGY-SAVING TECHNIQUES ARE SUB-DIVIDED UNDER THREE HEADINGS: (1) NO COST; (2) LOW CAPITAL COST; AND (3) LARGE CAPITAL COST. ALL THREE CATEGORIES INVOLVE MODIFICATION OF TREATMENT PROCESSES, ARCHITECTURAL DESIGN AND HEATING, VENTILATING, AIR CONDITIONING AND ELECTRICAL SYSTEMS.

AVAILABILITY: WATER 8 SEWAGE WORKS, V127 N11

IRIS ACCESSION NUMBER: EW005850

PUBLICATION DATE: NOV 80

TITLE: SELECTING PIPELINES TO ACHIEVE EFFECTIVE ENERGY CONSERVATION.

PERSONAL AUTHOR: REID, T. ANTHONY

DESCRIPTOR: *DESIGN; *ENERGY CONSERVATION; *ENGINEERING; *ENERGY; *PIPES; *PIPELINES; *PLANNING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 53-54,64-65,74P.

ABSTRACT: THE RAPID INCREASE IN THE COST OF ENERGY IN RECENT YEARS JUSTIFIES A MORE RIGOROUS PROCEDURE FOR SELECTING PIPELINES BASED ON THE TOTAL ENERGY REQUIREMENTS OVER THE LIFE OF THE PIPELINE. THIS PAPER PRESENTS AN APPROPRIATE MATHEMATICAL PROCEDURE.

AVAILABILITY: WATER 8 SEWAGE WORKS, V127 N11

IRIS ACCESSION NUMBER: EW005851

PUBLICATION DATE: 78

TITLE: DISPOSAL AND DECONTAMINATION OF PESTICIDES.

PERSONAL AUTHOR: KENNEDY, MAURICE V.

DESCRIPTOR: CHEMICALS; *DECONTAMINATION; DETOXIFICATION; HAZARDOUS WASTES; *PESTICIDE DISPOSAL; PHOTODECOMPOSITON; RESEARCH; TECHNOLOGY; *WASTE PESTICIDES

DESCRIPTIVE NOTE: 158P. PRICE: $20.00

ABSTRACT: THE PAPERS IN THIS VOLUME RELATE TO SEVERAL METHODS FOR THE DISPOSAL OF PESTICIDES. TOPICS INCLUDE THE PHOTOCHEMICAL DESTRUCTION OF CHLORODIOXINS AND HALOGENATED XANTHENE DYES, THE MICROWAVE PLASMA PROCESS, AND CATALYTIC HYDRODECHLORINATION AS WELL AS PYROYLYSIS OF MIREX RESIDUES AND DIELDRIN ELIMINATION. THIS BOOK ALSO PRESENTS A STATE-OF-THE ART REPORT ON PESTICIDE DISPOSAL RESEARCH AND INFORMATION ON THE DEVELOPING TECHNOLOGY FOR DETOXIFICATION OF PESTICIDES AND OTHER UNWANTED HAZARDOUS MATERIAL.

AVAILABILITY: AMERICAN CHEMICAL SOCIETY, 1155 SIXTEENTH STREET, NW, WASHINGTON, DC 20036

IRIS ACCESSION NUMBER: EW005852

PUBLICATION DATE: 79

TITLE: ENERGY CONSERVATION AT WASTEWATER TREATMENT PLANTS.

DESCRIPTOR: CASE STUDIES; *ENERGY CONSERVATION; *ENERGY; ECONOMICS; *FACILITIES; *MAINTENANCE; *MANAGEMENT; OPERATIONS (WASTEWATER); PLANNING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 23P. PRICE: $4.00

ABSTRACT: THIS PUBLICATION ENCOURAGES ENERGY CONSERVATION IN THE OPERATION, MAINTENANCE, AND MANAGEMENT OF WASTEWATER TREATMENT PLANTS. IT AIMS TO MAKE SUPERVISORS, OPERATORS, AND ENGINEERS AWARE OF THE OPPORTUNITIES FOR CONSERVING ENERGY, OUTLINE A PROGRAM FOR IDENTIFYING AND PURSUING CONSERVATION OPPORTUNITIES, AND PROVIDE SPECIFIC RELEVANT EXAMPLES OF CONSERVATION PRACTICES.

AVAILABILITY: WATER POLLUTION CONTROL FEDERATION, PUBLICATION ORDER DEPARTMENT, 2626 PENNSYLVANIA AVENUE, NW, WASHINGTON, DC 20037

INSTITUTION NAME: TASK FORCE ON ENERGY CONSERVATION.

IRIS ACCESSION NUMBER: EW005855

PUBLICATION DATE: 80

TITLE: SLUDGE THICKENING.

DESCRIPTOR: *AIR FLOTATION THICKENING; *CENTRIFUGAL THICKENING; ECONOMICS; *GRAVITATIONAL THICKENING; *OPERATIONS (WASTEWATER); *SLUDGE; *SLUDGE THICKENING; *WATER POLLUTION CONTROL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 163P. PRICE: $16.00

ABSTRACT: THIS MANUAL OF PRACTICE ATTEMPTS TO CONSOLIDATE IN A SINGLE VOLUME THE WEALTH OF INFORMATION AVAILABLE CONCERNING SLUDGE THICKENING PRACTICES. COMPREHENSIVE DISCUSSIONS OF GRAVITATIONAL, FLOTATIONAL, CENTIFUGAL THICKENING PROCESSES WHICH ARE WIDELY ACCEPTED AND APPLIED ARE INCLUDED. NEWER THICKENING METHODS SUCH AS THE USE OF DRUM, AND CANE THICKENERS, ARE ALSO ADDRESSED. SUPPORT PROCESSES AND CONTROLS ARE DISCUSSED WHEN APPROPRIATE.

AVAILABILITY: WATER POLLUTION CONTROL FEDERATION, PUBLICATION ORDER DEPARTMENT, 2626 PENNSYLVANIA AVENUE, NW, WASHINGTON, DC 20037

INSTITUTION NAME: TASK FORCE ON SLUDGE THICKENING.

IRIS ACCESSION NUMBER: EW005856

PUBLICATION DATE: 80

TITLE: PROCEEDINGS OF THE RESEARCH SYMPOSIA.

DESCRIPTOR: ACTIVATED SLUDGE; CLARIFIERS; *CONFERENCE PROCEEDINGS; FIXED FILM PROCESSES; INDUSTRIAL WASTES; LAND TREATMENT; *OPERATIONS (WASTEWATER); POLLUTION CONTROL; *RESEARCH; *RESEARCH REVIEWS; SORPTION PROCESSES; *SYMPOSIA; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 375P. PRICE: $40.00

ABSTRACT: THIS PUBLICATION CONTAINS THE PROCEEDINGS OF THE RESEARCH SYMPOSIA CONDUCTED AT THE 53RD ANNUAL CONFERENCE OF THE WATER POLLUTION CONTROL FEDERATION. THE PAPERS ARE GROUPED INTO THE FOLLOWING EIGHT SECTIONS: CLARIFIER DESIGN AND OPERATION, FIXED FILM PROCESSES, INDUSTRIAL WASTE RESEARCH, LAND TREATMENT, SORPTION PROCESS, ACTIVATED SLUDGE, GENERAL RESEARCH, AND CHEMICAL INTERACTIONS.

AVAILABILITY: WATER POLLUTION CONTROL FEDERATION, PUBLICATION ORDER DEPARTMENT, 2626 PENNSYLVANIA AVENUE, NW, WASHINGTON, DC 20037

IRIS ACCESSION NUMBER: EW005857

PUBLICATION DATE: 80

TITLE: PROCEEDINGS OF THE INDUSTRIAL WASTES SYMPOSIA.

DESCRIPTOR: CASE HISTORIES; *CONFERENCE PROCEEDINGS; EFFLUENTS; ENERGY; *INDUSTRIAL WASTES; MANAGEMENT; OPERATION (WASTEWATER); POLLUTION CONTROL; PRETREATMENT; *RESEARCH REPORTS; *SYMPOSIA; TECHNOLOGICAL ADVANCEMENT; *WASTE DISPOSAL; *WASTEWATER TREATMENT; WATER QUALITY

DESCRIPTIVE NOTE: 375P. PRICE: $40.00

ABSTRACT: THIS PUBLICATION CONTAINS THE PROCEEDINGS OF THE INDUSTRIAL WASTES SYMPOSIA CONDUCTED AT THE 53RD ANNUAL CONFERENCE OF THE WATER POLLUTION CONTROL FEDERATION. THE PAPERS ARE GROUPED INTO THE FOLLOWING EIGHT SECTIONS: WATER RELATED ASPECTS OF HAZARDOUS WASTE DISPOSAL, INDUSTRIAL EXPERIENCE WITH INNOVATIVE TECHNOLOGY, INDUSTRIAL WASTEWATER TREATMENT PLANT OPERATION, PRETREATMENT, WASTEWATER ASPECTS OF ENERGY PRODUCTION, EFFLUENT LIMITATIONS AND ALTERNATIVE APPROACHES, BEST MANAGEMENT PRACTICES AND SPCC PLANS, AND CASE HISTORIES.

AVAILABILITY: WATER POLLUTION CONTROL FEDERATION, PUBLICATION ORDER DEPARTMENT, 2626 PENNSYLVANIA AVENUE, NW, WASHINGTON, DC 20037

IRIS ACCESSION NUMBER: EW005858

PUBLICATION DATE: 80

TITLE: ABSTRACTS OF TECHNICAL PAPERS 53RD ANNUAL CONFERENCE WATER POLLUTION CONTROL FEDERATION 1980.

DESCRIPTOR: *ABSTRACTS; *CONFERENCE REPORTS; DESIGN; EQUIPMENT; FACILITIES; MANAGEMENT; *OPERATIONS (WASTEWATER); *POLLUTION CONTROL; RESEARCH REVIEWS; *TECHNICAL REPORTS; WASTE DISPOSAL; *WASTEWATER TREATMENT; *WATER POLLUTION

DESCRIPTIVE NOTE: 205P. PRICE: $3.00

ABSTRACT: THIS PUBLICATION IS A COMPILATION OF ABSTRACTS FROM PAPERS PRESENTED AT THE 53RD ANNUAL CONFERENCE OF THE WATER POLLUTION CONTROL FEDERATION, SEPTEMBER 28 - OCTOBER 3, 1980, LAS VEGAS, NEVADA. AMONG THE TOPICS COVERED BY THE 205 PAPERS WERE: ENERGY AND WASTE CONTROL, COLLECTION SYSTEMS - COMBINED SEWERS, CLARIFIER DESIGN AND OPERATION, HAZARDOUS WASTE DISPOSAL, ANAEROBIC SYSTEMS, PLANT OPERATIONS, MANAGEMENT, INDUSTRIAL WASTES, ECONOMICS, RESOURCE CONSERVATION AND RECOVERY ACT, PLANT OPERATIONS RESEARCH, PUBLIC EDUCATION, FACILITIES DESIGN, HEALTH AND SAFETY, INNOVATIVE AND ALTERNATIVE TECHNOLOGIES, SEWER SYSTEMS, PROCESS DESIGN, LAND TREATMENT, REUSE AND RECYCLING, SORPTION PROCESSES, USER CHARGE SYSTEMS, ACTIVATED SLUDGE, AND WATER QUALITY.

AVAILABILITY: WATER POLLUTION CONTROL FEDERATION, PUBLICATION ORDER DEPARTMENT, 2626 PENNSYLVANIA AVENUE, NW, WASHINGTON, DC 20037

IRIS ACCESSION NUMBER: EW005860

PUBLICATION DATE: 69

TITLE: SAFETY IN SEWERS AND AT SEWAGE WORKS.

DESCRIPTOR: *ACCIDENT PREVENTION; *EMERGENCIES; FACILITIES; MAINTENANCE; MANHOLES; *OCCUPATIONAL SAFETY; PUMPING STATIONS; *SAFETY; SAFETY EQUIPMENT; *SEWERS; *SEWAGE WORKS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 57P. PRICE: $1.75

ABSTRACT: THIS REPORT DEALS WITH THE RISKS TO WHICH WORKERS ARE EXPOSED IN SEWERAGE SYSTEMS AND AT SEWAGE TREATMENT WORKS. IT IS INTENDED PRIMARILY FOR THOSE RESPONSIBLE FOR THE DESIGN AND MANAGEMENT OF SEWERAGE AND SEWAGE DISPOSAL SYSTEMS. RECOMMENDATIONS ARE GIVEN ON SAFETY MEASURES CONCERNED WITH DESIGN, OPERATION, AND MAINTENANCE OF SUCH SYSTEMS, AND ON PRECAUTIONS TO BE TAKEN BY MEN WORKING IN THEM, TO ELIMINATE OR MINIMIZE THE LIKELY RISKS. THE REPORT INDICATES SOME SUITABLE TYPES OF SAFETY APPARATUS, AND SUGGESTS THE ACTION NECESSARY TO MAINTAIN SAFETY AT WORK AND EFFICIENCY IN ANY RESCUE OPERATIONS.

AVAILABILITY: AMERICAN SOCIETY OF CIVIL ENGINEERS, 345 EAST 47TH STREET, NEW YORK, NY 10017

INSTITUTION NAME: THE INSTITUTION OF CIVIL ENGINEERS. MINISTRY OF HOUSING AND LOCAL GOVERNMENT.

IRIS ACCESSION NUMBER: EW005861

PUBLICATION DATE: DEC 80

TITLE: RELATIVE HEALTH RISKS OF ACTIVATED SLUDGE TREATMENT AND SLOW-RATE LAND TREATMENT.

PERSONAL AUTHOR: UIGA, ANTS; CRITES, RONALD W.

DESCRIPTOR: *ACTIVATED SLUDGE; EVALUATION; *HEALTH RISKS; LAGOONS; *LAND APPLICATION; OCCUPATIONAL HEALTH; *OPERATIONS (WASTEWATER); *PUBLIC HEALTH; RESEARCH; SLUDGE; *SLUDGE TREATMENT; *WASTEWATER TREATMENT; WATER RESOURCES

DESCRIPTIVE NOTE: 2865-2874P.

ABSTRACT: A COMPARISON IS MADE OF THE POTENTIAL HEALTH EFFECTS OF ACTIVATED SLUDGE AND LAND TREATMENT SYSTEMS. REMOVAL MECHANISMS AND THEIR EFFECTIVENESS ARE REVIEWED. FACTORS NEEDED TO PROVIDE AN EVALUATION METHOD, INCLUDING CONTACT WITH A SUSCEPTIBLE HOST AND CONCENTRATION OF HEALTH-AFFECTING WASTEWATER CONSTITUENTS, ARE THEN ADDRESSED. BOTH TREATMENT SYSTEMS ARE EFFECTIVE IN MINIMIZING HEALTH RISKS. LAND TREATMENT SYSTEMS PROVIDE EQUAL OR GREATER REMOVAL OF VARIOUS WASTEWATER CONSTITUENTS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V52 N12

IRIS ACCESSION NUMBER: EW005862

PUBLICATION DATE: DEC 80

TITLE: TREATABLILITY OF TYPE A ZEOLITE IN WASTEWATER -- PART 1.

PERSONAL AUTHOR: KING, JAMES E.; AND OTHERS

DESCRIPTOR: ACTIVATED SLUDGE; BIODEGRADATION; CHEMICAL TREATMENT; *COLLECTION SYSTEMS; DETERGENTS; *PRIMARY TREATMENT; RESEARCH; *SECONDARY TREATMENT; TRICKLING FILTERS; *WASTEWATER TREATMENT; WATER QUALITY; *ZEOLITE

DESCRIPTIVE NOTE: 2875-2886P.

ABSTRACT: THE TREATMENT OF TYPE A ZEOLITE, A SYNTHETIC ALUMINOSILICATE THAT HAS BEEN DEVELOPED FOR USE AS A BUILDER IN DETERGENTS, WAS STUDIED IN COLLECTION SYSTEMS FOR WASTEWATER AND IN MODELS OF PRIMARY SEDIMENTATION AND WASTEWATER TREATMENT FACILITIES. THE STUDIES INDICATED NO SUBSTANTIAL LONG-TERM ACCUMULATION OF THE ZEOLITE IN COLLECTION SYSTEMS AND NO IMPAIRMENT OF FLOW. BOTH STATIC AND DYNAMIC SETTLING TESTS INDICATED THAT THE ZEOLITE WAS REMOVED LIKE OTHER SUSPENDED SOLIDS. THE ZEOLITE DID NOT INTERFERE WITH CHEMICAL TREATMENT FOR THE REMOVAL OF PHOSPHOROUS, AND THE CHEMICAL TREATMENT ENHANCED REMOVAL OF THE ZEOLITE. THE PRESENCE OF ZEOLITE HAD NO EFFECT ON THE RATE OR EXTENT OF THE BIODEGRADATION OF AN ANIONIC SUREALTANT IN ACTIVATED SLUDGE. IN STUDIES WITH SEMI-CONTINIOUS ACTIVATED SLUDGE, CONTINUOUS SLUDGE, AND TRICKLING FILTER PROCESSES, TREATMENT EFFICIENCIES WERE NOT ADVERSELY AFFECTED AND EFFLUENT CONCENTRATIONS OF METALS WERE NOT ALTERED BY THE ZEOLITE. REMOVAL OF THE ZEOLITE IN THESE PROCESSES WAS 80% OR MORE.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V52 N12

IRIS ACCESSION NUMBER: EW005863

PUBLICATION DATE: DEC 80

TITLE: TREATABILITY OF TYPE A ZEOLITE WASTEWATER -- PART II.

PERSONAL AUTHOR: HOLMAN, WILLIAM F.; HOPPING, WILLIAM D.

DESCRIPTOR: ACTIVATED SLUDGE; COLLECTION SYSTEMS; DEWATERING; *LABORATORY TESTING; *OPERATIONS (WASTEWATER); PERCOLATION; RESEARCH; *SEPTIC SYSTEMS; *SEPTIC TANKS; *SLUDGE; *WASTEWATER TREATMENT; *ZEOLITE

DESCRIPTIVE NOTE: 2887-2905P.

ABSTRACT: TYPE A ZEOLITE IS A SYNTHETIC ALUMINOSILICATE WHICH HAS BEEN DEVELOPED FOR USE AS A BUILDER IN DETERGENTS. THE EFFECT OF THE ZEOLITE ON VARIOUS PROCESSES USED TO TREAT SLUDGE AND ON-TREATMENT SYSTEMS FOR HOME WASTEWATER WAS EVALUATED. LABORATORY SIMULATIONS OF SLUDGE THICKENING, ANAEROBIC DIGESTION, AND DEWATERING WERE USED TO TEST ZEOLITE AT REALISTIC AND EXAGGERATED CONCENTRATIONS.

REALISTIC CONCENTRATIONS OF THE ZEOLITE HAD NO EFFECT ON THE EFFICIENCY OF THESE TREATMENT PROCESSES FOR SLUDGE. EXAGGERATED CONCENTRATIONS OF THE ZEOLITE IMPROVED SLUDGE SETTLING AND DEWATERING PROPERTIES. THE ZEOLITE HAD NO EFFECT ON THE PERFORMANCE OF LABORATORY SEPTIC TANKS OR ON THE QUALITY OF EFFLUENT FROM INDIVIDUAL HOME SEPTIC TANK AND AEROBIC SYSTEMS. THE ADDITION OF THE ZEOLITE DID NOT SIGNIFICANTLY INCREASE THE VOLUME OF SEPTIC TANK SLUDGE. THE PERCOLATION RATE OF EFFLUENT FROM SEPTIC TANKS IN SAND COLUMNS WAS NOT ALTERED BY THE PRESENCE OF REALISTIC CONCENTRATIONS OF THE ZEOLITE.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V52 N12

IRIS ACCESSION NUMBER: EW005864

PUBLICATION DATE: DEC 80

TITLE: CONTROL OF SLUDGE BULKING IN THE BREWING INDUSTRY.

PERSONAL AUTHOR: SCHWARTZ, HENRY G., JR.; AND OTHERS

DESCRIPTOR: ACTIVATED SLUDGE; *BREWING INDUSTRY; *CASE STUDIES; DESIGN; FOOD PROCESSING; *INDUSTRIAL WASTES; *OPERATIONS (WASTEWATER); *SLUDGE; *SLUDGE BULKING; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 2977-2993P.

ABSTRACT: TWO YEARS OF FULL SCALE OPERATIONS OF A BREWERY WASTE TREATMENT PLANT ARE ANALYZED TO DEMONSTRATE HOW THE PLANT OVERCAME THE PROBLEMS OF BULKING SLUDGE TYPICAL IN THE INDUSTRY. MAJOR FACTORS CONTRIBUTING TO BULKING SLUDGE CONDITIONS ARE EXAMINED ALONG WITH THE STEPS TAKEN TO OVERCOME THEM.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V52 N12

IRIS ACCESSION NUMBER: EW005865

PUBLICATION DATE: NOV 80

TITLE: IS THE WATER GETTING CLEANER? (A SURVEY OF WATER QUALITY IN THE TENNESSEE VALLEY - 1980).

PERSONAL AUTHOR: CLARK, LARRY R.; AND OTHERS

DESCRIPTOR: NATURAL RESOURCES; *RESEARCH; RESERVOIRS; RIVERS; *SURVEYS; STREAMS *TENNESSEE VALLEY AUTHORITY; WATER QUALITY PROBLEMS; *WATER QUALITY; *WATER RESOURCES; *WATER MANAGEMENT

DESCRIPTIVE NOTE: 33P.

ABSTRACT: THIS REPORT CONTAINS THE RESULTS OF A SURVEY OF THE WATER QUALITY OF THE TENNESSEE VALLEY. IT IDENTIFIES THE VALLEY'S CRITICAL AND SERIOUS WATER PROBLEMS, CHARTS WHATEVER PROGRESS HAS BEEN MADE, AND SUGGESTS POSSIBLE SOLUTIONS.

AVAILABILITY: DIVISION OF WATER RESOURCES, OFFICE OF NATURAL RESOURCES, TENNESSEE VALLEY AUTHORITY, 116 EVANS BUILDING, KNOXVILLE, TN 37901

IRIS ACCESSION NUMBER: EW005866

PUBLICATION DATE: NOV 78

TITLE: SAFETY TRAINING: HAZARDOUS SUBSTANCES.

DESCRIPTOR: ACCIDENT PREVENTION; *AUDIOVISUAL AIDS; *HAZARDOUS MATERIALS; INDUSTRIAL SAFETY; *INSTRUCTIONAL MATERIALS; OCCUPATIONAL SAFETY; *SAFETY; SAFETY EDUCATION; STUDENT GUIDES; *TEACHING GUIDES; *TOXIC SUBSTANCES; WORKBOOKS

DESCRIPTIVE NOTE: PRICE: $395.00 VIDIOCASSETTE, $1,400.00 TOTAL SET, $45.00 PRE UNIT TO PREVIEW, STUDENT AND INSTRUCTOR'S GUIDES INCLUDED

ABSTRACT: THIS HAZARDOUS SUBSTANCES TRAINING UNIT IS COMPOSED OF A ONE-HOUR VIDEOTAPE PRESENTATION, A STUDENT MANUAL WITH AN ACCOMPANYING TEXT, AND AN INSTRUCTOR'S GUIDE. THE VIDEOTAPE PROGRAM IS DIVIDED INTO SEVEN SEGMENTS, AND THE TEXT CORRESPONDS TO THE TAPE IN BOTH ORGANIZATION AND BASIC CONTENT. THE SEVEN SECTIONS INCLUDE: COMMON INDUSTRIAL HAZARDS; CHLORINE; ACIDS AND CAUSTICS; FLAMMABLE, EXPLOSIVE, AND RADIOACTIVE HAZARDS; PAINTS AND ADHESIVES; DUSTS AND GASES; AND METALLIC SUBSTANCES. BOTH THE STUDENT AND INSTRUCTOR'S GUIDES CONTAIN SECTION SUMMARIES, QUIZZES, AND A LIST OF TERMS.

AVAILABILITY: NUS CORPORATION, TRAINING SERVICES DIVISION, 4 RESEARCH PLACE, ROCKVILLE, MD 20850, ATTENTION: D. ZEZZO

IRIS ACCESSION NUMBER: EW005867

PUBLICATION DATE: SEP 20

TITLE: SAFETY TRAINING: RESPIRATORY PROTECTION.

DESCRIPTOR: ACCIDENT PREVENTION; APPARATUS; *AUDIOVISUAL AIDS; INDUSTRIAL SAFETY; *INSTRUCTIONAL MATERIALS; OCCUPATIONAL HEALTH; *RESPIRATORS; *RESPIRATORY PROTECTION; *SAFETY; SAFETY EDUCATION; STUDENT GUIDES; *TEACHING GUIDES; WORKBOOKS

DESCRIPTIVE NOTE: PRICE: $395.00 VIDIOCASSETTE, $1400.00 TOTAL SET, $445.00 16MM, $45.00 PER UNIT TO PREVIEW, STUDENT AND INSTRUCTOR'S GUIDES INCLUDED

ABSTRACT: THIS RESPIRATORY PROTECTION TRAINING UNIT IS COMPOSED OF A ONE-HOUR VIDEOTAPE PRESENTATION, A STUDENT MANUAL WITH AN ACCOMPANYING TEXT, AND AN INSTRUCTOR'S GUIDE. THE VIDEOTAPE PROGRAM IS DIVIDED INTO FIVE SEGMENTS, AND THE TEXT CORRESPONDS TO THE TAPE IN BOTH ORGANIZATION AND BASIC CONTENT. THE FIVE SECTIONS INCLUDE: RESPIRATORY HAZARDS, AIR PURIFYING RESPIRATORS, AIR SUPPLIED RESPIRATORS, FITTING OF

RESPIRATORY APPARATUS, AND USE AND CARE OF RESPIRATORY APPARATUS. BOTH THE STUDENT AND INSTRUCTOR'S GUIDES CONTAIN SECTION SUMMARIES, QUIZZES, AND A LIST OF TERMS.

AVAILABILITY: NUS CORPORATION, TRAINING SERVICE DIVISION, 4 RESEARCH PLACE, ROCKVILLE, MD 20850, ATTENTION: D. ZEZZO

IRIS ACCESSION NUMBER: EW005868

PUBLICATION DATE: JUL 78

TITLE: SAFETY TRAINING: FIRE SAFETY.

DESCRIPTOR: ACCIDENT PREVENTION; *AUDIOVISUAL AIDS; *FIRE PREVENTION; *FIRE PROTECTION; FIRES; INDUSTRIAL SAFETY; *INSTRUCTIONAL MATERIALS; OCCUPATIONAL SAFETY; *SAFETY; SAFETY EDUCATION; STUDENT GUIDES; *TEACHING GUIDES; WORKBOOKS

DESCRIPTIVE NOTE: PRICE: $445.00 VIDEOCASSETTE, $1400.00 TOTAL SET, $45.00 PER UNIT TO PREVIEW, STUDENT AND INSTRUCTOR'S GUIDES INCLUDED

ABSTRACT: THIS FIRE SAFETY TRAINING UNIT IS COMPOSED OF A ONE-HOUR VIDEOTAPE PRESENTATION, A STUDENT MANUAL WITH AN ACCOMPANYING TEXT, AND AN INSTRUCTOR'S GUIDE. THE VIDEOTAPE PROGRAM IS DIVIDED INTO SEVEN SEGMENTS. THE TEXT CORRESPONDS TO THE TAPE IN BOTH ORGANIZATION AND BASIC CONTENT. THE SEVEN SECTIONS ARE: FIRE CHEMISTRY, TYPES OF FIRES, PORTABLE FIREFIGHTING EQUIPMENT, BUILT-IN EXTINGUISHING SYSTEMS, RESPONDING TO A FIRE EMERGENCY, FIRE PREVENTION AT HOME, AND FIRE PREVENTION ON THE JOB. BOTH THE STUDENT AND INSTRUCTOR'S GUIDES CONTAIN SECTION SUMMARIES, QUIZZES, AND A LIST OF TERMS.

AVAILABILITY: NUS CORPORATION, TRAINING SERVICES, 4 RESEARCH PLACE, ROCKVILLE, MD 20850, ATTENTION: D. ZEZZO

IRIS ACCESSION NUMBER: EW005869

PUBLICATION DATE: AUG 78

TITLE: SAFETY TRAINING: PERSONAL SAFETY.

DESCRIPTOR: ACCIDENT PREVENTION; *AUDIOVISUAL AIDS; HAZARDS; INDUSTRIAL SAFETY; *INSTRUCTIONAL MATERIALS; *OCCUPATIONAL SAFETY; *SAFETY; SAFETY EDUCATION; *SAFETY EQUIPMENT; *TEACHING GUIDES; WORKBOOKS

DESCRIPTIVE NOTE: PRICE: $345.00 VIDIOCASSETTE, $1,400.00 TOTAL SET, $395.00 16MM, $45.00 PER UNIT TO PREVIEW, STUDENT AND INSTRUCTOR'S GUIDES INCLUDED

ABSTRACT: THIS PERSONAL SAFETY TRAINING UNIT IS COMPOSED OF A ONE-HOUR VIDEOTAPE PRESENTATION, A STUDENT MANUAL WITH AN ACCOMPANYING TEXT, AND AN INSTRUCTOR'S GUIDE. THE VIDEOTAPE PROGRAM IS DIVIDED INTO SIX SEGMENTS, AND THE TEXT CORRESPONDS TO THE VIDEOTAPE IN ORGANIZATION AND BASIC CONTENT. THE SIX SECTIONS INCLUDE: BASIC PROTECTION, SAFETY HAZARDS - PART I, SAFETY HAZARDS - PARTII, SAFETY EQUIPMENT, GOOD HOUSEKEEPING, AND LIFTING. BOTH THE STUDENT AND INSTRUCTOR'S GUIDES CONTAIN SECTION SUMMARIES, QUIZZES, AND A LIST OF TERMS.

AVAILABILITY: NUS CORPORATION, TRAINING SERVICES DIVISION, 4 RESEARCH PLACE, ROCKVILLE, MD 20850, ATTENTION: D. ZEZZO

IRIS ACCESSION NUMBER: EW005872

PUBLICATION DATE: DEC 78

TITLE: FIELD TESTING AND REVISIONS OF A COMPETENCY-BASED CURRICULUM FOR UPGRADING WATER TREATMENT TECHNICIANS.

PERSONAL AUTHOR: KINCAID, G. DAVID

DESCRIPTOR: COMPETENCY BASED INSTRUCTION; *CURRICULUM DEVELOPMENT; CURRICULUM GUIDES; *EDUCATIONAL RESEARCH; *EVALUATION; *FIELD TESTING; *INSTRUCTIONAL MATERIALS; OPERATORS; *POST SECONDARY EDUCATION; *SKILL DEVELOPMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 22P.

ABSTRACT: THE PURPOSE OF THIS PROJECT WAS TO FIELD TEST AND REVISE A SET OF 12 CURRICULUM MANUALS WHICH HAD BEEN PREVIOUSLY DEVELOPED FOR UPGRADING WATER TREATMENT PLANT OPERATOR SKILLS. THE MANUALS ARE WRITTEN IN COMPETANCY-BASED FORMAT, ARE MUTUALLY INDEPENDENT, AND ARE DESIGNED FOR SELF INSTRUCTION BY THE STUDENT. THE FIELD TEST INVOLVED A TOTAL OF 42 STUDENT OPERATORS AT 15 WATER SUPPLIES IN FIVE COUNTIES IN WEST VIRGINIA. THE STUDENT OPERATORS WERE EMPLOYED AT THESE SUPPLIES AS OPERATORS-IN-TRAINING OR AS CLASS I OPERATORS.

AVAILABILITY: WEST VIRGINIA RESEARCH COORDINATING UNIT FOR VOCATIONAL EDUCATION, MARSHALL UNIVERSITY, HUNTINGTON, WV 25701

IRIS ACCESSION NUMBER: EW005873

PUBLICATION DATE: JAN 81

TITLE: ASSESSING COSTS, BENEFITS AND PRODUCTIVITY IN TRAINING SYSTEMS.

PERSONAL AUTHOR: KEARSLEY, GREG; COMPTON, TERRY

DESCRIPTOR: COST/BENEFIT ANALYSIS; *COST EFFECTIVENESS; *EFFICIENCY; *EVALUATION; *INSTRUCTION; *MODELS; PERSONNEL MANAGEMENT; PRODUCTIVITY; *TRAINING; *TRAINING PROGRAMS

DESCRIPTIVE NOTE: 52-61P.

ABSTRACT: THIS ARTICLE DISCUSSES FOUR APPROACHES TO ASSESSING TRAINING EFFECTIVENESS AND EFFICIENCY: RESOURCE REQUIREMENT MODELS, LIFE CYCLE MODELS, BENEFIT MODELS, AND PRODUCTIVITY MODELS. THESE FOUR APPROACHES REPRESENT DIFFERENT WAYS OF ADDRESSING THE COST/BENEFITS ISSUE WHICH MAY OR MAY NOT BE USEFUL FOR A PARTICULAR TRAINING

SITUATION. THE READER MUST DECIDE WHICH MODEL ADDRESSES THEIR CURRENT PLANNING OR DECISION-MAKING NEEDS.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL, V35 N1

IRIS ACCESSION NUMBER: EW005877

PUBLICATION DATE: 78

TITLE: BIOASSAY OF PESTICIDES IN THE LABORATORY.

PERSONAL AUTHOR: BANKI, L.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *BIOASSAY; *LABORATORY PROCEDURES; *MEASUREMENT; *PESTICIDES

DESCRIPTIVE NOTE: 489P. PRICE: $34.50

ABSTRACT: THE PRINCIPAL AIM OF THE PRESENT BOOK IS TO GIVE COMPREHENSIVE INFORMATION ON THE METROLOGICAL, BIOLOGICAL, LOGICAL AND BIOMETRICAL MEASUREMENT OF BIOACTIVITY WITHIN A CLOSED SYSTEM, GIVING IN EVERY CASE THE PRECISE DEFINITION OF THE CONCEPTS. THE LARGE NUMBER OF EXAMPLES IN THE APPENDIX HELP MAKE THE MEASUREMENT AND CALCULATION METHOD INTELLIGIBLE.

AVAILABILITY: HEYDEN AND SONS, INC., 247 SOUTH 41ST STREET, PHILADELPHIA, PA 19104

IRIS ACCESSION NUMBER: EW005878

PUBLICATION DATE: AUG 79

TITLE: MOVEMENT OF HAZARDOUS SUBSTANCES IN SOIL-A BIBLIOGRAPHY. VOLUME 2. PESTICIDES.

PERSONAL AUTHOR: COPENHAVER, EMILY D.; WILKINSON, BENITA K.

DESCRIPTOR: *BIBLIOGRAPHY; HAZARDOUS MATERIALS; *HAZARDOUS SUBSTANCES; LAND APPLICATION; *METALS; ORGANIC COMPOUNDS; *PESTICIDES; *POLLUTION; PUBLIC HEALTH; *SOILS; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 228P. PRICE: $14.00

ABSTRACT: THIS BIBLIOGRAPHY IS INTENDED FOR USE BY PERSONNEL CONCERNED WITH THE DISPOSAL OF HAZARDOUS WASTES, OTHER THAN SEWAGE SLUDGE, ON LAND. IT IS THE RESULT OF A SEARCH OF RECENT LITERATURE (1970 THROUGH 1974) AND INCLUDES INFORMATION ON THE TRANSPORT, TRANSFORMATION, AND SOIL RETENTION OF ARSENIC, ASBESTOS, BERYLLIUM, CADMIUM, CHROMIUM, COPPER, CYANIDE, LEAD, MERCURY, SELENIUM, ZINC, HALOGENATED HYDROCARBONS, PESTICIDES, AND OTHER HAZARDOUS SUBSTANCES. THIS VOLUME CONTAINS THE PESTICIDE CITATIONS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

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EW005535 EW005547 EW005575 EW005576 EW005578 EW005615 EW005629 EW005657
EW005844 EW005848 EW005858 EW005864
*DESIGN CONSIDERATIONS (1) EW004793
DESIGN CONSIDERATIONS (1) EW005818
*DESIGN CRITERIA (2) EW005532 EW005547
*DETENTION TIME (1) EW005186
DETERGENTS (1) EW005862
DETOXIFICATION (1) EW005851
*DEWATERING (2) EW005488 EW005635
DEWATERING (3) EW005517 EW005781 EW005863
*DEWATERING FACILITIES (1) EW005634
*DIAGRAMS (1) EW005732
DIALYSIS (1) EW005550
*DICHLOROBENZIDINE (1) EW004629
*DIGESTER GAS (1) EW005848
*DIRECTORIES (4) EW004404 EW005623 EW005625 EW005785
*DISASTERS (1) EW004976
DISCHARGING SYSTEM (1) EW005805
*DISCIPLINE (1) EW003667
DISCIPLINE (1) EW005649
DISEASE (1) EW005658

*DISEASE CONTROL (1) EW005607
*DISEASES (1) EW005586

*DISINFECTION (9) EW004878 EW004881 EW004888 EW005538 EW005587 EW005592 EW005616
EW005647 EW005680

DISINFECTION (5) EW004886 EW005617 EW005654 EW005715 EW005827

*DISPERSION (1) EW005636

DISPOSAL SYSTEMS (1) EW005697

*DISSOLVED OXYGEN (3) EW004946 EW005508 EW005694

DISSOLVED OXYGEN (1) EW005614

*DISSOLVED SOLIDS (1) EW005638

*DISTRIBUTED CONTROL (1) EW005828

DISTRIBUTIVE EDUCATION (1) EW004404

*DPD METHOD (1) EW005680

DRAINAGE (1) EW005121

*DRAWINGS (1) EW005731

*DRINKING WATER (22) EW004881 EW004888 EW004960 EW004961 EW005263 EW005490 EW005519
EW005523 EW005541 EW005570 EW005592 EW005616 EW005617 EW005618 EW005620
EW005621 EW005666 EW005668 EW005671 EW005783 EW005816 EW005833

DRINKING WATER (7) EW004975 EW005522 EW005542 EW005569 EW005587 EW005605 EW005659

*DRIVE COMPONENTS (1) EW005767

*DROUGHTS (1) EW005711

*DUAL DISTRIBUTION SYSTEMS (1) EW005520

*DUAL WATER SYSTEMS (1) EW005520

DUST (1) EW004893

*EARTHQUAKES (1) EW004976

*ECOLOGY (2) EW005586 EW005778

ECOLOGY (1) EW005656

*ECONOMIC ANALYSIS (1) EW005532

*ECONOMIC FACTORS (3) EW005516 EW005615 EW005651

ECONOMIC FACTORS (2) EW005571 EW005573

*ECONOMIC IMPACTS (1) EW004889

*ECONOMIC IMPACT STUDIES (1) EW005086

*ECONOMICS (9) EW004371 EW004467 EW004810 EW004961 EW005009 EW005086 EW005114
EW005189 EW005708

ECONOMICS (12) EW004535 EW004602 EW004818 EW005518 EW005620 EW005650 EW005781
EW005790 EW005802 EW005829 EW005852 EW005855
*ECOSYSTEMS (2) EW004887 EW005778
ECOSYSTEMS (2) EW005581 EW005588
*EDUCATIONAL NEEDS (1) EW005521
EDUCATIONAL PROBLEMS (1) EW005523
*EDUCATIONAL PROGRAMS (2) EW005521 EW005787
EDUCATIONAL PROGRAMS (3) EW004886 EW005461 EW005522
*EDUCATIONAL RESEARCH (1) EW005872
*EFFICIENCY (4) EW005780 EW005837 EW005847 EW005873
EFFICIENCY (6) EW005187 EW005188 EW005589 EW005592 EW005784 EW005845
*EFFLUENTS (3) EW004741 EW004893 EW005098
EFFLUENTS (14) EW004773 EW004948 EW005104 EW005128 EW005530 EW005568 EW005576
EW005605 EW005628 EW005651 EW005657 EW005780 EW005837 EW005857
EFFLUENT STANDARDS (1) EW005086
ELECTRICAL CIRCUITS (1) EW005751
*ELECTRICAL DEVICES (4) EW005753 EW005757 EW005758 EW005808
ELECTRICAL DEVICES (2) EW005748 EW005750
*ELECTRICAL EQUIPMENT (4) EW005759 EW005762 EW005763 EW005764
*ELECTRICAL HAZARDS (1) EW005807
ELECTRICAL POWER PLANTS (1) EW004893
*ELECTRICAL RELAYS (1) EW005758
*ELECTRICAL SYSTEMS (9) EW005512 EW005749 EW005755 EW005756 EW005759 EW005760 EW005761
EW005762 EW005763
ELECTRICAL SYSTEMS (2) EW005807 EW005808
*ELECTRICITY (9) EW005512 EW005749 EW005751 EW005754 EW005755 EW005756 EW005757
EW005758 EW005764
ELECTRICITY (5) EW005715 EW005759 EW005761 EW005762 EW005763
ELECTROCHEMICAL MEASUREMENT (1) EW005694
ELECTROLYTIC PROCESSES (1) EW005550
ELECTRON DIFFRACTION (1) EW005662
*ELECTRONIC CONTROL (2) EW005191 EW005514

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*ELECTRONIC INFORMATION EXCHANGE SYSTEM   (1)       EW005787
*ELECTRONIC INSTRUMENTATION               (1)       EW005191

*ELECTRONICS                              (8)       EW005748  EW005749  EW005750  EW005751  EW005752  EW005753  EW005754
                                          EW005764

*ELECTRON IRRADIATION                     (1)       EW003555

*ELECTRON MICROSCOPY                      (1)       EW005662

*EMERGENCIES                              (3)       EW004976  EW005603  EW005860

 EMISSIONS                                (1)       EW004535

*EMPLOYEE RELATIONS                       (1)       EW005619

 EMPLOYER EMPLOYEE RELATIONSHIPS          (3)       EW005117  EW005619  EW005667

*EMPLOYMENT PROJECTIONS                   (1)       EW004979

*ENERGY                                   (8)       EW005187  EW005188  EW005551  EW005594  EW005629  EW005844  EW005850
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 ENERGY                                   (5)       EW005588  EW005744  EW005747  EW005847  EW005857

*ENERGY CONSERVATION                      (18)      EW004535  EW005187  EW005188  EW005461  EW005512  EW005551  EW005593
                                          EW005594  EW005629  EW005746  EW005813  EW005844  EW005846  EW005847  EW005848
                                          EW005849  EW005850  EW005852

 ENERGY CONSERVATION                      (7)       EW005189  EW005571  EW005589  EW005590  EW005745  EW005790  EW005845

 ENERGY EFFICIENCY                        (1)       EW005568

 ENERGY RECOVERY                          (1)       EW005551

*ENGINEERING                              (6)       EW004811  EW005085  EW005657  EW005725  EW005803  EW005850

 ENGINEERING                              (12)      EW004894  EW004976  EW005485  EW005518  EW005554  EW005555  EW005571
                                          EW005606  EW005610  EW005613  EW005620  EW005693

*ENGINEERING DRAWINGS                     (1)       EW005731

*ENGINEERING HANDBOOK                     (1)       EW003783

*ENGINEERS                                (1)       EW005610

 ENGINEERS                                (1)       EW005512


 ENVIORNMENTAL EFFECTS                    (1)       EW005133

*ENVIRONMENT                              (7)       EW004731  EW004820  EW005543  EW005552  EW005695  EW005698  EW005703

 ENVIRONMENT                              (7)       EW005086  EW005153  EW005500  EW005581  EW005588  EW005661  EW005831

*ENVIRONMENTAL ASSESSMENT                 (1)       EW005147

*ENVIRONMENTAL BIOLOGY                    (1)       EW005588

*ENVIRONMENTAL CHEMISTRY                  (1)       EW005796

*ENVIRONMENTAL CONTROL                    (1)       EW005089
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*ENVIRONMENTAL EFFECTS	(1)	EW005130						
ENVIRONMENTAL EFFECTS	(1)	EW004602						
*ENVIRONMENTAL ENGINEERING	(1)	EW005085						
ENVIRONMENTAL ENGINEERING	(2)	EW004803	EW004948					
*ENVIRONMENTAL FACTORS	(1)	EW005708						
*ENVIRONMENTAL HEALTH	(1)	EW005802						
*ENVIRONMENTAL IMPACT	(3)	EW004735	EW005589	EW005590				
ENVIRONMENTAL IMPACT	(3)	EW004587	EW005515	EW005651				
*ENVIRONMENTAL IMPACT ASSESSMENT	(1)	EW004946						
ENVIRONMENTAL IMPACT STATEMENTS	(1)	EW005695						
*ENVIRONMENTAL INFLUENCES	(2)	EW004944	EW004972					
*ENVIRONMENTAL LAW	(1)	EW005695						
*ENVIRONMENTAL LEGISLATION	(1)	EW005730						
ENVIRONMENTAL LEGISLATION	(1)	EW005089						
*ENVIRONMENTAL MANAGEMENT	(1)	EW005700						
ENVIRONMENTAL POLICY ACT	(1)	EW005695						
*ENVIRONMENTAL PROTECTION	(2)	EW005700	EW005730					
ENVIRONMENTAL PROTECTION	(3)	EW005517	EW005653	EW005703				
*ENVIRONMENTAL PROTECTION AGENCY	(6)	EW005263	EW005569	EW005581	EW005628	EW005730	EW005832	
ENVIRONMENTAL PROTECTION AGENCY	(13) EW005638	EW005543 EW005639	EW005552 EW005640	EW005584 EW005641	EW005620 EW005642	EW005621 EW005643	EW005631	EW005637
*ENVIRONMENTAL REGULATIONS	(2)	EW005569	EW005832					
ENVIRONMENTAL REGULATIONS	(3)	EW004908	EW005574	EW005698				
*ENVIRONMENTAL RISK ASSESSMENT	(1)	EW005582						
*ENVIRONMENTAL RISKS	(1)	EW005582						
*ENVIRONMENTAL TECHNOLOGISTS	(1)	EW005085						
*EQUATIONS	(1)	EW005613						
*EQUIPMENT	(15) EW005528	EW003783 EW005534	EW004733 EW005537	EW004743 EW005539	EW004911 EW005627	EW004978 EW005647	EW005098 EW005738	EW005494 EW005847
EQUIPMENT	(25) EW005505	EW004734 EW005519	EW004886 EW005525	EW004976 EW005526	EW005107 EW005531	EW005188 EW005570	EW005488 EW005572	EW005491 EW005583

EW005585 EW005608 EW005609 EW005612 EW005654 EW005664 EW005699 EW005785
EW005809 EW005858

*EQUIPMENT EVALUATION (4) EW005535 EW005609 EW005611 EW005627

EQUIPMENT EVALUATION (2) EW005488 EW005533

EQUIPMENT MAINTENANCE (1) EW005488

*EQUIPMENT MANUFACTURERS (1) EW005533

EQUIPMENT OPERATION (2) EW005737 EW005738

EQUIPMENT REPAIR (1) EW005583

*EQUIPMENT SELECTION (1) EW005627

*EQUIPMENT SUPPLIERS (1) EW005785

EROSION (5) EW004810 EW004813 EW004820 EW004972 EW005114

*EROSION CONTROL (1) EW004793

*EUROPE (1) EW005782

EUTROPHICATION (1) EW005811

*EVALUATION (13) EW004560 EW004978 EW005524 EW005615 EW005619 EW005636 EW005709
EW005779 EW005780 EW005781 EW005832 EW005872 EW005873

EVALUATION (10) EW004960 EW004965 EW004974 EW005653 EW005743 EW005747 EW005753
EW005764 EW005775 EW005861

*EVALUATION METHODS (1) EW005814

EVALUATION METHODS (1) EW005619

*EXCAVATIONS (1) EW005009

*EXPLOSIVE FACILITIES (1) EW005725

*FACILITIES (36) EW003783 EW004371 EW004476 EW004735 EW004773 EW005186 EW005187
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EW005629 EW005634 EW005654 EW005661 EW005713 EW005741 EW005790 EW005803
EW005804 EW005828 EW005844 EW005849 EW005852

FACILITIES (20) EW003555 EW004532 EW004772 EW004886 EW004962 EW004976 EW005117
EW005191 EW005526 EW005533 EW005636 EW005651 EW005657 EW005715 EW005729
EW005746 EW005782 EW005810 EW005856 EW005860

*FEASIBILITY STUDIES (1) EW005114

*FECAL COLIFORM (1) EW005686

*FEDERAL AGENCIES (1) EW005652

*FEDERAL CRITERIA (11) EW005089 EW005637 EW005638 EW005639 EW005640 EW005641 EW005642
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FEDERAL GOVERNMENT (3) EW004803 EW005073 EW005461

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FEDERAL LEGISLATION	(9)	EW005604 EW005628 EW005629 EW005707 EW005708 EW005709 EW005710 EW005711 EW005712
*FEDERAL POLICIES	(1)	EW005153
*FEDERAL PROGRAMS	(4)	EW005153 EW005569 EW005622 EW005653
FEDERAL PROGRAMS	(2)	EW005492 EW005579
*FEDERAL PROJECTS	(1)	EW005652
*FEDERAL REGULATIONS	(3)	EW005089 EW005574 EW005730
FEDERAL REGULATIONS	(2)	EW005698 EW005813
FEDERAL STANDARDS	(1)	EW005508
FEDERAL STATE RELATIONSHIPS	(2)	EW005461 EW005653
FEDERAL STATUTES	(1)	EW005698
FEDERAL WATER POLLUTION CONTROL ACT	(1)	EW005631
*FERTILIZERS	(1)	EW004953
FERTILIZERS	(1)	EW003555
*FIELD TESTING	(1)	EW005872
FIELD TESTS	(1)	EW005524
*FILMS	(13)	EW005575 EW005576 EW005577 EW005578 EW005663 EW005664 EW005665 EW005666 EW005667 EW005668 EW005669 EW005671 EW005790
*FILMSTRIPS	(3)	EW005670 EW005686 EW005687
FILMSTRIPS	(13)	EW005672 EW005673 EW005675 EW005676 EW005677 EW005678 EW005679 EW005680 EW005681 EW005682 EW005683 EW005684 EW005685
*FILTER MEDIA	(1)	EW004534
FILTERS	(3)	EW005490 EW005770 EW005837
*FILTER SYSTEMS	(2)	EW004534 EW005490
*FILTRATION	(3)	EW004534 EW005488 EW005837
FILTRATION	(2)	EW005780 EW005806
FINANCIAL ASSISTANCE	(1)	EW005813
*FIRE PREVENTION	(1)	EW005868
*FIRE PROTECTION	(2)	EW005809 EW005868
FIRE PROTECTION	(1)	EW005518
FIRES	(1)	EW005868
*FIRST AID	(1)	EW005665
*FISH	(2)	EW004642 EW005128

FISH	(1)	EW005586				
FITTINGS	(1)	EW005540				
FIXED FILM PROCESSES	(1)	EW005856				
FLOOD CONTROL	(1)	EW005114				
*FLOODING	(1)	EW005631				
FLOODING	(1)	EW004820				
FLOOD MANAGEMENT	(1)	EW005121				
FLORIDA	(1)	EW005537				
*FLOW CAPACITY	(1)	EW005669				
FLOW CHARACTERISTICS	(1)	EW005791				
*FLOW CHARTS	(1)	EW004380				
*FLOW EQUALIZATION	(1)	EW005608				
*FLOW MEASURING DEVICES	(1)	EW005533				
*FLOWMETERS	(2)	EW005609	EW005792			
*FLOW PREDICTION	(1)	EW005631				
*FLUID DYNAMICS	(1)	EW005791				
*FLUID FLOW	(2)	EW005792	EW005793			
FLUID FLOW	(2)	EW004534	EW005791			
*FLUIDS	(1)	EW005771				
*FLUORIDATION	(1)	EW005519				
FLUORIDE	(1)	EW005541				
*FLUORINE	(1)	EW005519				
FOOD PROCESSING	(1)	EW005864				
FORECASTING	(1)	EW004803				
*FOREST MANAGEMENT	(1)	EW005602				
*FORESTRY	(5)	EW004740	EW004887	EW005081	EW005506	EW005602
FORESTRY	(1)	EW004944				
FOUNDATIONS	(1)	EW005494				
*FREEZE-UPS	(1)	EW005611				
FRICTIONLESS BEARINGS	(1)	EW005768				

FUEL CONSUMPTION	(1)	EW005187
FUELS	(1)	EW004535
*FUGITIVE EMISSIONS	(1)	EW004893
FUNDING	(1)	EW005584
FUSES	(1)	EW005758
*GAS CHROMATOGRAPHY	(1)	EW005675
GAS CHROMATOGRAPHY	(1)	EW004742
*GEARS	(1)	EW005767
GENERATORS	(1)	EW005761
*GEOMETRY	(1)	EW005733
*GLOSSARIES	(1)	EW005698
GOVERNMENT	(1)	EW005461
*GOVERNMENT ROLE	(1)	EW005461
GOVERNMENT ROLE	(2)	EW005695 EW005700
*GRANT PROCESSING	(1)	EW005599
*GRANTS	(1)	EW005509
*GRANTS PROGRAMS	(1)	EW005509
*GRANULAR ACTIVATED CARBON	(2)	EW005532 EW005570
*GRAVITATIONAL THICKENING	(1)	EW005855
GRAVITY SEWERS	(1)	EW005697
*GREASES	(3)	EW005766 EW004774 EW005679
GREASES	(1)	EW004776
*GREAT LAKES	(1)	EW005805
*GROUNDWATER	(5)	EW004975 EW005816 EW004908 EW005009 EW005604
GROUNDWATER	(3)	EW004972 EW005121 EW005829
*GUIDELINES	(5)	EW005534 EW005547 EW005574 EW005796 EW005831
*GUIDES	(4)	EW005579 EW005619 EW005633 EW005833
GUIDES	(1)	EW005627
*HANDBOOKS	(4)	EW005605 EW005655 EW005695 EW005811
HANDBOOKS	(1)	EW005509

*HAND TOOLS (1) EW005737
HAND TOOLS (2) EW005741 EW005765
*HARDNESS (1) EW005684
HAZARDOUS CHEMICALS (1) EW005602
*HAZARDOUS MATERIALS (5) EW005510 EW005543 EW005603 EW005725 EW005866
HAZARDOUS MATERIALS (1) EW005878
*HAZARDOUS SUBSTANCES (1) EW005878
*HAZARDOUS WASTES (7) EW005152 EW005552 EW005554 EW005555 EW005581 EW005661 EW005813
HAZARDOUS WASTES (4) EW005590 EW005695 EW005816 EW005851
HAZARDS (2) EW005809 EW005869
*HEALTH (3) EW005073 EW005074 EW005582
HEALTH (3) EW004371 EW005648 EW005649
HEALTH EDUCATION (1) EW005665
*HEALTH EFFECTS (3) EW005587 EW005616 EW005789
HEALTH EFFECTS (4) EW004602 EW005130 EW005133 EW005666
HEALTH HAZARDS (1) EW005525
*HEALTH RISKS (3) EW005607 EW005815 EW005861
HEALTH RISKS (2) EW004888 EW005616
HEALTH SERVICES (1) EW005663
HEART MUSCLES (1) EW004642
HEAT PUMPS (1) EW005844
*HEAT RECOVERY (1) EW005848
*HEAVY METALS (10) EW005487 EW005589 EW005637 EW005639 EW005640 EW005642 EW005643
EW005672 EW005673 EW005674
HEAVY METALS (5) EW005152 EW005572 EW005590 EW005614 EW005645
*HEIMLICH MANEUVER (1) EW005665
HEMODIALYSIS (1) EW005550
*HIGHER EDUCATION (1) EW005588
HIGHER EDUCATION (1) EW005085
*HISTORY (1) EW005153
*HOLDING PONDS (1) EW004775
HOUSEHOLD SEWAGE (1) EW005658
HUMAN HEALTH (2) EW004804 EW004805

*HUMAN RELATIONS (1) EW005649
HUMAN RELATIONS (1) EW005648

*HYDOLOGY (1) EW005103

*HYDRAULICS (8) EW005009 EW005770 EW005771 EW005772 EW005775 EW005791 EW005792
EW005793

HYDRAULICS (4) EW005655 EW005693 EW005715 EW005827

HYDRAULIC SYSTEMS (1) EW005774

*HYDROGEN PEROXIDE (1) EW003763

HYDROGEN PEROXIDE (1) EW004881

*HYDROGEN SULFIDE (1) EW005777

HYDROGEN SULFIDE (2) EW003783 EW005633

*HYDROLOGY (9) EW004813 EW004972 EW004975 EW005515 EW005708 EW005710 EW005711
EW005712 EW005816

HYDROLOGY (6) EW004810 EW005114 EW005121 EW005699 EW005707 EW005709

*HYPOCHLORINATION (1) EW004886

*IDAHO (1) EW005611

*IDENTIFICATION (1) EW005510

ILLINOIS (1) EW005536

*IMPLEMENTATION (1) EW005525

IMPLEMENTATION (1) EW005532

*INCINERATION (2) EW005589 EW005590

INCINERATION (1) EW005152

INCINERATORS (2) EW004535 EW005844

*INDEPENDENT STUDY (2) EW005648 EW005649

INDEPENDENT STUDY (1) EW004886

*INDICATOR BACTERIA (1) EW004965

*INDIVIDUALIZED INSTRUCTION (23) EW005731 EW005732 EW005733 EW005734 EW005735 EW005736 EW005737
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EW005766 EW005767 EW005768 EW005769 EW005770 EW005771 EW005772 EW005773

INDIVIDUALIZED INSTRUCTION (15) EW005748 EW005749 EW005750 EW005751 EW005752 EW005754 EW005756
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*INDIVIDUAL SEWAGE SYSTEMS (1) EW005805

INDUSTRIAL EFFLUENTS (1) EW005487

INDUSTRIAL HAZARDS (1) EW004944

*INDUSTRIAL POLLUTION (1) EW005743
INDUSTRIAL POLLUTION (1) EW005802

*INDUSTRIAL SAFETY (2) EW005807 EW005809

INDUSTRIAL SAFETY (5) EW005663 EW005866 EW005867 EW005868 EW005869

*INDUSTRIAL TECHNOLOGY (2) EW005750 EW005752

INDUSTRIAL TECHNOLOGY (4) EW004587 EW005748 EW005749 EW005753

*INDUSTRIAL WASTES (14) EW004535 EW004893 EW004908 EW005098 EW005104 EW005128 EW005552
EW005554 EW005572 EW005604 EW005651 EW005811 EW005857 EW005864

INDUSTRIAL WASTES (6) EW005486 EW005654 EW005742 EW005827 EW005828 EW005856

INDUSTRIAL WASTEWATER (1) EW005261

*INDUSTRIAL WASTEWATER (1) EW004776

*INDUSTRIES (1) EW005550

*INDUSTRY (2) EW004908 EW005593

INFECTIOUS DISEASES (1) EW005607

*INFILTRATION (2) EW005536 EW005631

INFILTRATION (3) EW004820 EW005537 EW005608

*INFLOW (3) EW005536 EW005608 EW005631

*INFORMATION CENTERS (2) EW005623 EW005624

*INFORMATION DISSEMINATION (2) EW005783 EW005787

INFORMATION SPECIALISTS (1) EW005624

*INFORMATION SYSTEMS (3) EW004532 EW005263 EW005787

INNOVATIVE SYSTEMS (1) EW005697

INPOUNDMENTS (1) EW005604

*INSECTICIDE RESISTANCE (1) EW005650

*INSECTICIDES (1) EW005789

*INSERVICE EDUCATION (1) EW005521

*INSPECTION (1) EW005524

INSPECTION (4) EW005525 EW005539 EW005540 EW005768

INSPECTORS (1) EW005548

*INSTALLATION (2) EW005606 EW005655

INSTALLATION (4) EW005494 EW005715 EW005768 EW005772

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*INSTRUCTION                     (5)       EW004404  EW004560  EW005263  EW005521  EW005873
 INSTRUCTIONAL FILMS             (1)       EW005664

*INSTRUCTIONAL MATERIALS         (121)     EW004476  EW004563  EW004734  EW004886  EW004948  EW004962  EW004972
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                                 EW005526  EW005527  EW005528  EW005529  EW005541  EW005548  EW005549  EW005583
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                                 EW005807  EW005808  EW005809  EW005810  EW005827  EW005866  EW005867  EW005868
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 INSTRUCTIONAL MATERIALS         (1)       EW005521


*INSTRUMENTATION                 (11)      EW004642  EW004734  EW004911  EW005191  EW005512  EW005514  EW005535
                                 EW005662  EW005705  EW005792  EW005828

 INSTRUMENTATION                 (3)       EW005634  EW005692  EW005712

 INSURANCE                       (1)       EW005518

*INTEGRATED PEST MANAGEMENT      (1)       EW005543

 INTERDISCIPLENARY RESEARCH      (1)       EW005621

*INTERNATIONAL EDUCATION         (1)       EW005521

 IODINE                          (1)       EW004881

 ION EXCHANGE                    (1)       EW005829

*ION-EXCHANGE BEDS               (1)       EW005531

 IONIZING RADIATION              (1)       EW004881

*IOWA                            (1)       EW005572

*IRON                            (1)       EW005646

*IRRIGATION                      (1)       EW005103

 IRRIGATION                      (3)       EW005261  EW005490  EW005573

 JOB ANALYSIS                    (1)       EW005619

*JOB SKILLS                      (1)       EW005741

*JOB TRAINING                    (1)       EW005527

 JOB TRAINING                    (4)       EW005485  EW005522  EW005523  EW005626
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JOURNAL BEARINGS	(1)	EW005768
*JUDICIAL DECISIONS	(1)	EW005730
KINETIC MODEL	(1)	EW005618
*KINETICS	(1)	EW005486
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*LABORATORY PERSONNEL	(1)	EW004560
*LABORATORY PROCEDURES	(8)	EW004741 EW004890 EW004965 EW004977 EW005526 EW005534 EW005694 EW005877
LABORATORY PROCEDURES	(7)	EW005487 EW005531 EW005617 EW005668 EW005670 EW005715 EW005833
*LABORATORY TECHNIQUES	(26)	EW004534 EW004560 EW004587 EW004742 EW004743 EW004977 EW005526 EW005662 EW005670 EW005672 EW005673 EW005674 EW005675 EW005676 EW005677 EW005678 EW005679 EW005680 EW005681 EW005682 EW005683 EW005684 EW005686 EW005687 EW005692 EW005796
LABORATORY TECHNIQUES	(6)	EW005522 EW005523 EW005570 EW005668 EW005810 EW005832
*LABORATORY TESTING	(2)	EW004890 EW005863
LABORATORY TESTING	(3)	EW004587 EW005510 EW005526
LABORATORY TESTS	(1)	EW005107
*LABOR FORCE	(1)	EW004803
LABOR UTILIZATION	(1)	EW005492
*LAGOONS	(1)	EW005555
LAGOONS	(2)	EW004878 EW005861
LAGOON SYSTEMS	(1)	EW004773
LAKES	(1)	EW005811
*LAND APPLICATION	(8)	EW004887 EW004908 EW004948 EW005491 EW005553 EW005790 EW005815 EW005861
LAND APPLICATION	(3)	EW005578 EW005579 EW005878
*LANDCARE	(1)	EW004965
*LAND DEVELOPMENT	(1)	EW004820
*LAND DISPOSAL	(1)	EW005604
LAND DISPOSAL	(1)	EW005152
*LANDFILLS	(1)	EW005555
LANDFILLS	(2)	EW005574 EW005578
LAND MANAGEMENT	(1)	EW005700
*LAND PROBLEMS	(1)	EW005121

*LAND RECLAIMATION	(1)	EW005491
*LAND TREATMENT	(2)	EW004908 EW005790
LAND TREATMENT	(1)	EW005856
*LAND USE	(5)	EW004794 EW004813 EW004908 EW005090 EW005578
LAND USE	(5)	EW004820 EW005553 EW005573 EW005579 EW005695
LAND UTILIZATION	(1)	EW005492
LAS VEGAS	(1)	EW005568
*LAW	(2)	EW005695 EW005730
LAWS	(1)	EW004818
LEAD	(1)	EW005672
*LEADERSHIP	(1)	EW005648
LEADERSHIP TRAINING	(1)	EW004404
*LEARNING ACTIVITIES	(1)	EW005527
LEGAL ACTION	(1)	EW004974
LEGAL ASPECTS	(2)	EW004820 EW004948
LEGAL FACTORS	(1)	EW004602
LEGAL IMPLICATIONS	(2)	EW004793 EW005620
*LEGAL OPINIONS	(1)	EW005730
*LEGAL REQUIREMENTS	(1)	EW004960
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LEGISLATION	(7)	EW004818 EW005081 EW005505 EW005605 EW005622 EW005700 EW005706
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LIBRARIES	(1)	EW005624
*LIFTING	(1)	EW005663
LIMNOLOGY	(1)	EW005486
*LITERATURE REVIEWS	(1)	EW005098
LITERATURE REVIEWS	(1)	EW005633
*LOGGING	(1)	EW004965
*LOGIC CIRCUITS	(1)	EW005752
*LUBRICATION	(2)	EW005529 EW005766
MACHINERY	(1)	EW005634

MAGNESIUM HARDNESS (1) EW005684
MAGNETISM (1) EW005754
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*MAINTENANCE (PREVENTATIVE) (1) EW005611
MAINTENANCE TRAINING (1) EW005529
*MANAGEMENT (42) EW004380 EW004404 EW004563 EW004793 EW004794 EW004803 EW004810 EW004811 EW004818 EW004960 EW004961 EW004974 EW004975 EW005074 EW005090 EW005117 EW005187 EW005492 EW005506 EW005509 EW005518 EW005521 EW005536 EW005572 EW005577 EW005603 EW005610 EW005619 EW005622 EW005626 EW005648 EW005649 EW005650 EW005653 EW005661 EW005667 EW005713 EW005715 EW005782 EW005813 EW005816 EW005852
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*MANAGEMENT ALTERNATIVES (1) EW005590
*MANAGEMENT DEVELOPMENT (1) EW004404
*MANAGEMENT EDUCATION (2) EW004404 EW005117
*MANAGEMENT REPORTS (1) EW004467
*MANAGEMENT SYSTEMS (2) EW005610 EW005783
MANAGEMENT SYSTEMS (1) EW005117
*MANAGERS (1) EW005692
MANHOLE REPAIR (1) EW005536
MANHOLES (2) EW005699 EW005860
MANPOWER DEVELOPMENT (1) EW004404
*MANPOWER NEEDS (4) EW004532 EW004803 EW004979 EW005626
MANPOWER UTILIZATION (4) EW004974 EW004976 EW004979 EW005571
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*MANUALS (2) EW005542 EW005715
MANUALS (3) EW005610 EW005810 EW005827
*MANUFACTURERS (1) EW005785
MANUFACTURERS (1) EW005627
MANUFACTURING (1) EW004811
MARKETING (1) EW004371

MARKING (1) EW005540
MASSACHUSETTS (1) EW005616

*MASS SPECTROMETRY (1) EW004742

*MATERIALS HANDLING (1) EW005632

*MATHEMATICAL APPLICATIONS (2) EW005613 EW005685

MATHEMATICAL APPLICATIONS (2) EW004975 EW005733

MATHEMATICAL MODELING (1) EW004893

*MATHEMATICAL MODELS (3) EW004975 EW005489 EW005613

*MATHEMATICS (2) EW005685 EW005733

MATHEMATICS (5) EW005527 EW005715 EW005741 EW005810 EW005832

*MATHEMATICS EDUCATION (1) EW005733

*MEASUREMENT (10) EW005514 EW005685 EW005694 EW005699 EW005734 EW005791 EW005792 EW005793 EW005796 EW005877

MEASUREMENT (4) EW004734 EW005541 EW005741 EW005765

*MEASUREMENT INSTRUMENTS (3) EW005533 EW005699 EW005757

*MEASUREMENT TECHNIQUES (6) EW004893 EW005668 EW005683 EW005684 EW005699 EW005734

MEASUREMENT TECHNIQUES (1) EW005533

*MEASURE OF MERIT (1) EW004894

*MEAT INDUSTRY (1) EW005104

*MECHANICAL MAINTENANCE (1) EW005529

*MECHANICS (2) EW005765 EW005775

MEDICINE (1) EW005550

*MEMBRANE FILTER TEST (2) EW005686 EW005687

*MEMBRANES (1) EW005550

*MERCURY (1) EW005637

*METALLURGY (1) EW005735

*METALS (3) EW005646 EW005735 EW005878

METALS (1) EW004743

METALS RECOVERY (1) EW005651

*METEOROLOGY (1) EW005814

METERS (1) EW005533

*METHANE (1) EW005848
METHANE (1) EW004535

METHODOLOGIES (1) EW005694

*METHODS (1) EW004978

*METRIC SYSTEM (2) EW005685 EW005734

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MICROBIOLOGY (6) EW004887 EW004944 EW005594 EW005715 EW005810 EW005815

*MICROORGANISIMS (1) EW005630

MICROORGANISIMS (1) EW004772

*MICROSLIDES (1) EW004977

*MILITARY FACILITIES (1) EW005729

MILLING (1) EW004890

MINE WASTES (1) EW005604

MINING (1) EW004890

*MIXED LIQUOR (1) EW004977

MIXING (1) EW005635

MODELING (2) EW005103 EW005704

*MODELS (11) EW004813 EW004889 EW004946 EW005186 EW005261 EW005631 EW005636
EW005708 EW005729 EW005830 EW005873

MODELS (2) EW005582 EW005777

*MODIFICATIONS (1) EW005568

*MONITORING (10) EW004642 EW004741 EW004890 EW004911 EW005656 EW005692 EW005694
EW005699 EW005726 EW005832

MONITORING (4) EW004587 EW005535 EW005582 EW005833

*MONITORS (1) EW005535

MOTIVATION (1) EW005648

*MOTORS (2) EW005760 EW005761

MOTORS (1) EW005771

*MULTIMEDIA ENVIRONMENTAL CONTROLS (1) EW005089

*MULTIVIBRATORS (1) EW005751

*MUNICIPALITIES (4) EW004371 EW004532 EW005593 EW005815

MUNICIPALITIES (7) EW004806 EW005551 EW005553 EW005577 EW005584 EW005693 EW005828

*MUNICIPAL SEWAGE (1) EW004887
MUNICIPAL SEWAGE (1) EW004774

*MUNICIPAL WASTES (3) EW004535 EW005574 EW005575
MUNICIPAL WASTES (3) EW004953 EW005572 EW005576
*MUNICIPAL WASTEWATER (1) EW005509
MUNICIPAL WASTEWATER (1) EW005629
*MUTAGENICITY (1) EW005726
MUTAGENICITY (1) EW004805
*NATIONAL ASSESSMENT (6) EW005706 EW005707 EW005708 EW005710 EW005711 EW005712
*NATIONAL ELECTRICAL CODE (1) EW005758
*NATURAL RESOURCES (2) EW005103 EW005651
NATURAL RESOURCES (2) EW005582 EW005865
*NEVADA (1) EW005090
NEVADA (2) EW005530 EW005568
*NITRATE NITROGEN (1) EW005678
*NITRATES (1) EW005829
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*NITRIFICATION (1) EW005487
*NITROGEN (1) EW005670
NITROGEN (1) EW005780
*NOISE (1) EW005742
NOISE (2) EW005695 EW005730
NOISE POLLUTION (1) EW005743
NOISE POLLUTION CONTROL (1) EW005703
*NOMOGRAPHS (1) EW005613
*NON-COMMUNITY WATER SYSTEMS (1) EW005542
*NONMETAL MATERIALS (1) EW005736
*NONPOINT POLLUTION (2) EW005090 EW005506
*NONPOINT SOURCE POLLUTION (3) EW004740 EW004813 EW004889
*NONPOINT SOURCES (1) EW005090

NONPOTABLE WATER	(1)	EW005659					
NONTARGET SPECIES	(1)	EW005602					
NORTH CAROLINA	(1)	EW005617					
NUCLEAR POWER PLANTS	(1)	EW004890					
*NUTRIENT REMOVAL	(1)	EW005190					
NUTRIENTS	(1)	EW005811					
OCCUPATIONAL HAZARDS	(1)	EW005815					
OCCUPATIONAL HEALTH	(4)	EW005089	EW005607	EW005861	EW005867		
*OCCUPATIONAL SAFETY	(6)	EW005073	EW005074	EW005607	EW005663	EW005860	EW005869
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*OCCUPATIONAL SAFETY AND HEALTH ACT	(1)	EW005739					
OCCUPATIONAL SAFETY AND HEALTH ACT	(1)	EW005703					
*OCEANOLOGY	(1)	EW003555					
*ODOR CONTROL	(3)	EW005592	EW005633	EW005636			
*ODORS	(3)	EW004775	EW005633	EW005636			
*ODORS PREVENTION	(1)	EW005633					
OHIO	(1)	EW005527					
*OIL	(3)	EW005098	EW005107	EW005679			
*OIL POLLUTION	(1)	EW004731					
*OIL POLLUTION CONTROL	(1)	EW005107					
*OIL RECOVERY	(1)	EW005098					
OIL RECOVERY	(1)	EW005107					
*OIL SPILLS	(1)	EW004731					
*OIL WATER SEPARATORS	(2)	EW005098	EW005107				
*ONSITE DISPOSAL	(1)	EW005713					
*ONSITE TREATMENT	(1)	EW005595					
*ONSITE WASTEWATER SYSTEMS	(1)	EW005713					
*ONSITE WASTEWATER TREATMENT	(2)	EW004972	EW005585				
ONSITE WASTEWATER TREATMENT	(1)	EW005713					

ONTARIO (1) EW005547

*OPERATING COSTS (1) EW004894

OPERATIONAL TECHNOLOGY (1) EW005529

*OPERATION ANALYSIS (1) EW005814

*OPERATIONS (2) EW005571 EW005610

OPERATIONS (3) EW005585 EW005744 EW005748

*OPERATIONS (FORESTRY) (1) EW005506

*OPERATIONS MANUALS (1) EW004380

*OPERATIONS (WASTEWATER) (51) EW003783 EW004476 EW004560 EW004587 EW004741 EW004743 EW004772
EW004773 EW004886 EW004978 EW005104 EW005117 EW005188 EW005261 EW005485
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EW005630 EW005634 EW005635 EW005636 EW005647 EW005654 EW005657 EW005776
EW005778 EW005779 EW005780 EW005781 EW005803 EW005818 EW005827 EW005828
EW005837 EW005845 EW005846 EW005847 EW005848 EW005849 EW005855 EW005856
EW005858 EW005861 EW005863 EW005864

OPERATIONS (WASTEWATER) (5) EW004979 EW005608 EW005651 EW005713 EW005852

*OPERATIONS (WATER) (26) EW004560 EW004563 EW004733 EW004734 EW004743 EW004811 EW004888
EW004962 EW005490 EW005493 EW005517 EW005519 EW005522 EW005526 EW005527
EW005528 EW005532 EW005542 EW005549 EW005583 EW005587 EW005605 EW005612
EW005715 EW005762 EW005810

OPERATIONS (WATER) (3) EW005492 EW005547 EW005591

OPERATOR REQUIREMENTS (1) EW005488

OPERATORS (1) EW005872

*OPERATOR TRAINING (1) EW005485

ORGANIC CHEMISTRY (1) EW004888

*ORGANIC COMPOUNDS (3) EW005147 EW005260 EW005554

ORGANIC COMPOUNDS (2) EW004742 EW005878

*ORGANIC FOULING (1) EW005531

*ORGANIC LOADING (1) EW005630

*ORGANICS (1) EW005570

*ORGANIC WASTES (2) EW004953 EW005554

*ORGANIZATION (1) EW004380

ORGANIZATIONAL ALTERNATIVES (1) EW005652

*OSCILLATORS	(1)	EW005751				
*OWNER-BUILT SYSTEMS	(1)	EW005658				
OXIDATION	(1)	EW005592				
OXIDATION TECHNIQUES	(1)	EW004888				
*OXYGEN	(3)	EW005508	EW005779	EW005818		
OXYGEN	(1)	EW004741				
OXYGENATION EQUIPMENT	(1)	EW005818				
*OXYGEN DEMAND	(1)	EW004741				
OZONATION	(1)	EW005570				
*OZONE	(2)	EW004888	EW004944			
OZONE	(2)	EW004878	EW004881			
PACKAGING	(1)	EW005540				
PAINTS	(1)	EW005736				
*PAPER INDUSTRY	(1)	EW005128				
*PAPER MILLS	(1)	EW005488				
PAPER WASTES	(1)	EW004953				
*PARKS	(1)	EW005595				
PATHOGENS	(2)	EW003555	EW005815			
PENNSYLVANIA	(1)	EW005491				
*PEOPLE MANAGEMENT	(1)	EW005649				
PERCOLATION	(1)	EW005863				
*PERFORMANCE CRITERIA	(2)	EW005627	EW005837			
*PERFORMANCE EVALUATION	(1)	EW004911				
PERFORMANCE RATINGS	(1)	EW005649				
*PERFORMANCE REVIEW	(1)	EW005619				
*PERMANGANATE	(1)	EW005617				
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PERSONNEL	(3)	EW004979	EW005518	EW005610		
*PERSONNEL MANAGEMENT	(2)	EW005117	EW005667			
PERSONNEL MANAGEMENT	(1)	EW005873				
*PEST CONTROL	(1)	EW005586				
PEST CONTROL	(1)	EW005500				

*PESTICIDE DISPOSAL (1) EW005851
PESTICIDE DRIFT (1) EW005602
*PESTICIDE FORMULATIONS (1) EW005500
PESTICIDE POISONING (1) EW005500
PESTICIDE RESIDUES (1) EW005650
*PESTICIDES (9) EW005500 EW005505 EW005543 EW005602 EW005650 EW005675 EW005789
EW005877 EW005878
PESTICIDES (4) EW005130 EW005614 EW005695 EW005730
PETROLEUM (1) EW004893
*PHENOL (1) EW005486
*PHOSPHATES (2) EW005190 EW005681
*PHOSPHOROUS (1) EW005681
PHOSPHOROUS (1) EW005780

PHOTODECOMPOSITON (1) EW005851
*PHOTOMICROGRAPHY (2) EW004977 EW005510
PHOTOSYNTHESIS (1) EW005656
*PHYSICAL TREATMENT (1) EW005782
*PHYSICS (1) EW005765
PHYSIOLOGY (2) EW004944 EW005656

PILOT PLANTS (1) EW005490
*PILOT STUDIES (1) EW005260
PILOT STUDIES (2) EW005532 EW005781
*PILOT TESTS (2) EW005531 EW005845
*PIPE FITTINGS (1) EW005770
*PIPELINE FLOWS (1) EW005791
*PIPELINES (1) EW005850
*PIPE LINING (1) EW005669
PIPE LININGS (2) EW005536 EW005537
*PIPES (12) EW004811 EW005525 EW005540 EW005613 EW005655 EW005669 EW005688
EW005693 EW005770 EW005771 EW005772 EW005850
PIPES (2) EW005536 EW005549

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PLANNING (17) EW004735 EW004811 EW005090 EW005518 EW005542 EW005549 EW005574 EW005575 EW005579 EW005629 EW005654 EW005706 EW005712 EW005806 EW005816 EW005848 EW005852
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PLANT OPERATORS (1) EW005493
*PLANT PERFORMANCE (1) EW005530
*PLANT SAFETY (1) EW005739
*PLASTIC PIPE (1) EW005693
PLASTICS (1) EW005736
*PNEUMATICS (3) EW005773 EW005774 EW005775
POISONS (1) EW005505
POLAROGRAPHIC DETECTORS (1) EW005694
*POLICIES (2) EW004380 EW005653
*POLICY (2) EW005622 EW005709
POLICY (1) EW004889
POLICY RESEARCH (2) EW005620 EW005621
POLITICAL SCIENCE (1) EW005700
*POLLUTANTS (1) EW005510
POLLUTANTS (3) EW005679 EW005831 EW005832
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*POLLUTION CONTROL (20) EW004742 EW004775 EW004820 EW004889 EW004893 EW004894 EW005089 EW005104 EW005147 EW005187 EW005589 EW005590 EW005614 EW005632 EW005651 EW005698 EW005742 EW005743 EW005816 EW005858
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POLLUTION CONTROL TECHNOLOGY (1) EW005818
*POLLUTION INDICATORS (1) EW004813
*POLLUTION MEASURES (1) EW005656

*POLLUTION STANDARDS (10) EW005637 EW005638 EW005639 EW005640 EW005641 EW005642 EW005643 EW005644 EW005645 EW005646
*POLLUTION TECHNOLOGY (2) EW005554 EW005555
*POLYMER CONDITIONING (1) EW005635
*POLYMERS (1) EW005635
*POLYVINYLCHLORIDE PIPE (1) EW005693
*PONDS (1) EW004775
*POST SECONDARY EDUCATION (2) EW005527 EW005872
*POTABLE WATER (2) EW005103 EW005592
POTABLE WATER (6) EW005519 EW005520 EW005525 EW005659 EW005664 EW005666
POTASSIUM PERMANGANATE (1) EW004881
*POTOMIC RIVER (1) EW005577
*POULTRY INDUSTRY (1) EW005104
*POWDERED ACTIVATED CARBON (1) EW005570
*POWER PLANTS (3) EW005744 EW005745 EW005746
POWER PLANTS (1) EW005747
*POWER SUPPLIES (1) EW005749
*POWER TOOLS (1) EW005738
POWER TOOLS (1) EW005765
*PRECHLORINATION (1) EW005538
PRECURSOR REDUCTION (1) EW005538
*PREDICTION (2) EW005709 EW005777
PREDICTION (1) EW005618
PREFABRICATED COATING (1) EW005540
PRESSURE SEWERS (1) EW005697
*PRETREATMENT (1) EW005617
PRETREATMENT (1) EW005857
*PRIMARY TREATMENT (1) EW005862
PRIVATE OWNERSHIP (1) EW005572
PROBABILITY (1) EW005582
*PROBLEM ANALYSIS (1) EW005706
PROBLEM SOLVING (5) EW005530 EW005571 EW005622 EW005740 EW005763
*PROCESSING (1) EW005591

PRODUCTIVITY	(1)	EW005873
*PROGRAM DESCRIPTIONS	(3)	EW004404 EW004560 EW005085
*PROGRAM GUIDES	(2)	EW004404 EW005809
*PROGRAMMED INSTRUCTION	(1)	EW005740
PROGRAMMED INSTRUCTION	(43)	EW004886 EW005731 EW005732 EW005733 EW005734 EW005735 EW005736 EW005737 EW005738 EW005739 EW005742 EW005743 EW005744 EW005745 EW005746 EW005747 EW005748 EW005749 EW005750 EW005751 EW005752 EW005753 EW005754 EW005755 EW005756 EW005757 EW005758 EW005759 EW005760 EW005761 EW005762 EW005763 EW005765 EW005766 EW005767 EW005768 EW005769 EW005770 EW005771 EW005772 EW005773 EW005774 EW005775
*PROJECT EVALUATION	(1)	EW005814
PROJECTIONS	(6)	EW005706 EW005707 EW005708 EW005710 EW005711 EW005712
*PROTECTIVE BARRIERS	(1)	EW005555
*PROTECTIVE CLOTHING	(1)	EW005505
*PUBLIC HEALTH	(5)	EW004629 EW004887 EW005582 EW005802 EW005861
PUBLIC HEALTH	(18)	EW004733 EW004742 EW004804 EW004805 EW005510 EW005525 EW005586 EW005587 EW005602 EW005620 EW005621 EW005658 EW005659 EW005661 EW005665 EW005692 EW005833 EW005878
*PUBLIC PARTICIPATION	(2)	EW005700 EW005787
*PUBLIC RELATIONS	(1)	EW005615
PUBLIC RELATIONS	(2)	EW004563 EW005518
*PUBLIC SWIMMING POOLS	(1)	EW005806
*PUBLIC WATER SUPPLIES	(1)	EW005804
*PUBLIC WATER SYSTEMS	(1)	EW005542
PUBLIC WATER SYSTEMS	(1)	EW005783
*PUBLISHERS	(1)	EW005625
*PULP INDUSTRY	(1)	EW005128
*PULPING WASTES	(1)	EW005128
*PUMPING STATIONS	(1)	EW005606
PUMPING STATIONS	(1)	EW005860
*PUMPS	(3)	EW005613 EW005769 EW005771
PUMPS	(1)	EW004734
*PURFICATION	(1)	EW005550
PURFICATION	(1)	EW005818

*QUALIFICATIONS	(1)	EW004560
*QUALITY CONTROL	(2)	EW005514 EW005633
QUALITY CONTROL	(3)	EW004371 EW005592 EW005831
QUALITY CRITERIA	(7)	EW005637 EW005638 EW005639 EW005640 EW005641 EW005642 EW005643
*QUANTITATIVE ASSAY	(1)	EW005694
RADIATION	(1)	EW005730
*RATE STRUCTURES	(1)	EW005615
RECLAMATION	(1)	EW005152
RECOMMENDATIONS	(1)	EW005610
*RECORD KEEPING	(2)	EW005583 EW005833
RECORD KEEPING	(4)	EW005524 EW005526 EW005493 EW005548
*RECORDS	(2)	EW004467 EW005524
*RECREATION AREAS	(2)	EW004794 EW005595
*RECYCLING	(12)	EW004535 EW004602 EW005261 EW005573 EW005593 EW005651 EW005657 EW005659 EW005729 EW005781 EW005790 EW005848
RECYCLING	(2)	EW004803 EW005188
REFERENCE MANUALS	(1)	EW005549
*REFERENCE MATERIALS	(2)	EW005625 EW005809
REFUSE DISPOSAL	(1)	EW005578
*REGIONAL PLANNING	(1)	EW004889
*REGIONAL PROGRAMS	(1)	EW005509
*REGULATIONS	(24)	EW004804 EW004805 EW005073 EW005074 EW005081 EW005086 EW005089 EW005508 EW005541 EW005584 EW005603 EW005637 EW005638 EW005639 EW005640 EW005642 EW005643 EW005695 EW005703 EW005725 EW005802 EW005813 EW005832 EW005846
REGULATIONS	(8)	EW004810 EW004818 EW005518 EW005605 EW005622 EW005651 EW005730 EW005815
REPAIR	(2)	EW005583 EW005669
REPORTS	(1)	EW005787
*REPROCESSING	(1)	EW004953
REPRODUCTION	(1)	EW005588
*REQUIREMENTS	(1)	EW004979

*RESEARCH	(9)	EW004741 EW005260 EW005570 EW005614 EW005616 EW005618 EW005814 EW005856 EW005865
RESEARCH	(21)	EW004878 EW004965 EW004977 EW005543 EW005586 EW005607 EW005617 EW005706 EW005707 EW005708 EW005709 EW005710 EW005711 EW005712 EW005777 EW005783 EW005837 EW005851 EW005861 EW005862 EW005863
RESEARCH ACTIVITIES	(1)	EW005152
*RESEARCH FACILITIES	(1)	EW005534
RESEARCH NEEDS	(1)	EW005569
*RESEARCH PRIORITIES	(1)	EW005121
*RESEARCH REPORTS	(2)	EW005831 EW005857
RESEARCH REPORTS	(1)	EW005587
*RESEARCH REVIEWS	(2)	EW005543 EW005856
RESEARCH REVIEWS	(3)	EW005659 EW005811 EW005858
RESERVOIRS	(2)	EW005114 EW005865
*RESIDUAL CHLORINE	(1)	EW005680
*RESIDUES	(1)	EW005676
RESINS	(1)	EW005531
RESORTS	(1)	EW004735
*RESOURCE CONSERVATION	(1)	EW004953
*RESOURCE CONSERVATION AND RECOVERY ACT	(2)	EW005661 EW005813
RESOURCE CONSERVATION AND RECOVERY ACT	(1)	EW005695
RESOURCE MANAGEMENT	(1)	EW005103
*RESOURCE RECOVERY	(6)	EW004803 EW004806 EW005593 EW005651 EW005813 EW005848
RESOURCE RECOVERY	(3)	EW005703 EW005816 EW005846
RESPIRATION	(1)	EW005588
*RESPIRATORS	(1)	EW005867
*RESPIRATORY PROTECTION	(1)	EW005867
*REUSE	(3)	EW005573 EW005657 EW005781
*REVEGETATION	(1)	EW005491
REVEGETATION	(1)	EW004887
REVENUE REQUIREMENTS	(1)	EW005615
*RISK ASSESSMENT	(1)	EW005582
RISK ASSESSMENT	(1)	EW005602
*RISK EVALUATION	(1)	EW005582

*RISK FACTORS	(1)	EW005074
RISK MANAGEMENT	(1)	EW005582
*RISKS	(1)	EW005582
RISKS	(1)	EW005796
*RIVER QUALITY ASSESSMENT	(1)	EW005515
*RIVERS	(1)	EW005515
RIVERS	(4)	EW005577 EW005622 EW005811 EW005865
*ROTATING BIOLOGICAL FILTERS	(1)	EW005779
RUBBER	(1)	EW005736
*RULES	(1)	EW005081
*RUNOFF WATERS	(1)	EW005489
*RURAL AREAS	(3)	EW005492 EW005579 EW005595
RURAL AREAS	(1)	EW005713
*SAFE DRINKING WATER ACT	(7)	EW004960 EW004961 EW005620 EW005621 EW005666 EW005671 EW005833
SAFE DRINKING WATER ACT	(1)	EW005703
*SAFETY	(20)	EW005073 EW005074 EW005500 EW005505 EW005512 EW005583 EW005632 EW005650 EW005663 EW005737 EW005738 EW005739 EW005789 EW005808 EW005809 EW005860 EW005866 EW005867 EW005868 EW005869
SAFETY	(16)	EW004886 EW005518 EW005519 EW005526 EW005538 EW005570 EW005648 EW005649 EW005661 EW005703 EW005715 EW005741 EW005758 EW005806 EW005807 EW005827
SAFETY EDUCATION	(5)	EW005807 EW005866 EW005867 EW005868 EW005869
*SAFETY EQUIPMENT	(1)	EW005869
SAFETY EQUIPMENT	(1)	EW005860
SAMPLE PRESERVATION	(1)	EW004587
*SAMPLING	(5)	EW004741 EW004794 EW005627 EW005668 EW005796
SAMPLING	(6)	EW004962 EW004965 EW005541 EW005827 EW005832 EW005833
*SAMPLING METHODS	(1)	EW004587
*SANITARY ENGINEERING	(2)	EW005524 EW005806
*SANITARY FACILITIES	(1)	EW005658
SANITARY SEWAGE SYSTEMS	(1)	EW005547
SANITARY SEWERS	(1)	EW005548
*SANITARY SURVEYS	(2)	EW005522 EW005523
*SANITATION	(2)	EW005524 EW005658

*SCHEMATIC DIAGRAMS	(1)	EW005732
SCRAPING	(1)	EW004978
SCREENS	(1)	EW005613
*SEAFOOD INDUSTRY	(1)	EW005104
*SECONDARY TREATMENT	(1)	EW005862
SECONDARY TREATMENT	(2)	EW004772 EW005594
SECURITY	(1)	EW005648
SEDIMENT	(1)	EW004810
*SEDIMENTATION	(1)	EW004820
*SEDIMENT CONTROL	(1)	EW004793
*SEDIMENTS	(2)	EW005704 EW005705
SEISMIC INVESTIGATIONS	(1)	EW004976
*SEMIARID REGIONS	(1)	EW005103
*SEMICONDUCTORS	(1)	EW005748
*SEMINAR PROCEEDINGS	(1)	EW004818
SEMINARS	(2)	EW005522 EW005523
*SEPARATION METHODS	(1)	EW004731
*SEPARATION PROCESSES	(1)	EW004534
*SEPTAGE	(1)	EW005776
*SEPTIC SYSTEMS	(2)	EW005579 EW005863
*SEPTIC TANKS	(1)	EW005863
SEPTIC TANKS	(4)	EW004972 EW005595 EW005697 EW005776
*SEWAGE	(9)	EW004820 EW004887 EW004965 EW005589 EW005606 EW005614 EW005627 EW005811 EW005828
SEWAGE	(3)	EW004735 EW005713 EW005818
SEWAGE TREATMENT	(1)	EW005593
*SEWAGE WORKERS	(1)	EW005607
*SEWAGE WORKS	(1)	EW005860
*SEWERS	(10)	EW004774 EW005186 EW005536 EW005537 EW005547 EW005548 EW005631 EW005777 EW005830 EW005860
SEWERS	(5)	EW005114 EW005575 EW005579 EW005655 EW005693
*SEWER SYSTEMS	(2)	EW005575 EW005805

*SILVICULTURE (2) EW004740 EW005506
*SIMULATION (2) EW004813 EW005114
SIMULATION (1) EW005186
SINGLE-PHASE MOTORS (1) EW005760
*SITE EVALUATION (1) EW004948
SITE EVALUATION (2) EW005585 EW005805
SITE SELECTION (1) EW005574
*SKILL DEVELOPMENT (6) EW004404 EW005670 EW005672 EW005673 EW005760 EW005872
SKILL DEVELOPMENT (53) EW005571 EW005674 EW005675 EW005677 EW005679 EW005680 EW005681
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EW005770 EW005771 EW005772 EW005773 EW005774 EW005775

*SLIDE PROGRAMS (18) EW005670 EW005672 EW005673 EW005674 EW005675 EW005676 EW005677
EW005678 EW005679 EW005680 EW005681 EW005682 EW005683 EW005684 EW005685
EW005686 EW005687 EW005688

SLIP LINING (1) EW005536
*SLUDGE (26) EW003555 EW004371 EW004806 EW004887 EW004953 EW005188 EW005488
EW005517 EW005553 EW005574 EW005589 EW005590 EW005593 EW005634 EW005776
EW005778 EW005779 EW005781 EW005815 EW005818 EW005844 EW005845 EW005846
EW005855 EW005863 EW005864
SLUDGE (7) EW004978 EW005491 EW005554 EW005576 EW005605 EW005811 EW005861
*SLUDGE BULKING (1) EW005864
SLUDGE DEWATERING (1) EW005488
*SLUDGE DISPOSAL (6) EW003555 EW004806 EW005553 EW005574 EW005591 EW005657
SLUDGE DISPOSAL (2) EW005491 EW005576
*SLUDGE DRYING (1) EW005593
SLUDGE MANAGEMENT (1) EW005778
*SLUDGE REMOVAL (2) EW004978 EW005517
*SLUDGE SETTLEABILITY (1) EW005630
*SLUDGE THICKENING (2) EW005781 EW005855
*SLUDGE TRANSPORTATION (1) EW004806
*SLUDGE TREATMENT (2) EW005594 EW005861
SLUDGE TREATMENT (2) EW005591 EW005654

SLUDGE UTILIZATION (1) EW005574
*SMALL COMMUNITIES (2) EW005492 EW005579
SMALL COMMUNITIES (1) EW005697
*SMALL FLOWS (1) EW005697
*SMALL WATER SYSTEMS (1) EW005542
*SOCIAL FACTORS (1) EW005708
SOCIAL IMPACTS (1) EW004889
SOIL CONSERVATION (1) EW005090
SOIL CONSERVATION SERVICE (1) EW005652
*SOILS (3) EW004908 EW004948 EW005878
SOILS (2) EW004793 EW005713
SOLAR ENERGY (1) EW005461
SOLIDIFICATION PROCESSES (1) EW005152
*SOLIDS (1) EW005638
*SOLIDS CONTACT CLARIFICATION (1) EW005845
SOLIDS HANDLING (1) EW004476
SOLIDS PROCESSING (1) EW005634
*SOLID WASTE DISPOSAL (1) EW005578
*SOLID WASTES (6) EW004803 EW005551 EW005581 EW005591 EW005603 EW005742
SOLID WASTES (8) EW004535 EW004806 EW005604 EW005695 EW005730 EW005743 EW005816
EW005827
SORPTION PROCESSES (1) EW005856
SOYBEANS (1) EW005543
*SPECIAL LIBRARIES (1) EW005623
SPECIAL LIBRARIES (1) EW005624
*SPECIFICATIONS (1) EW005804
*SPECTROPHOTOMETRY (1) EW005672
*SPILLS (1) EW005603

*STAFF (1) EW004979
STAFF IMPROVEMENT (1) EW004974
STAFF SELECTION (1) EW004979
*STAGNANT WATER (1) EW004775

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*STAINING TECHNIQUES          (1)       EW004977
*STANDARDS                    (17)      EW004629  EW004804  EW004961  EW005089  EW005539  EW005540  EW005552
                              EW005569  EW005584  EW005628  EW005783  EW005802  EW005803  EW005804  EW005805
                              EW005806  EW005832
 STANDARDS                    (14)      EW004974  EW004975  EW005130  EW005492  EW005508  EW005518  EW005530
                              EW005532  EW005568  EW005604  EW005618  EW005622  EW005659  EW005796
*START-UP                     (1)       EW005634
 STATE AGENCIES               (1)       EW005621
*STATE CRITERIA               (10)      EW005637  EW005638  EW005639  EW005640  EW005641  EW005642  EW005643
                              EW005644  EW005645  EW005646
 STATE GUIDELINES             (1)       EW005520
*STATE OF THE ART REVIEWS     (1)       EW005622
 STATE PLANNING               (1)       EW004803
*STATE PROGRAMS               (1)       EW005509
 STATE STANDARDS              (1)       EW005508
*STATISTICS                   (2)       EW004975  EW005631
*STATUS ASSESSMENT            (2)       EW005130  EW005133
*STATUTES                     (1)       EW005703
*STEAM GENERATING SYSTEMS     (3)       EW005744  EW005745  EW005746
 STEAM GENERATION             (1)       EW005747
*STEEL PIPES                  (1)       EW005540
*STORAGE FACILITIES           (1)       EW005547
 STORAGE RESERVOIRS           (1)       EW005577

*STORM RUNOFF                 (1)       EW005830
*STORM SEWERS                 (1)       EW005830
 STORM SEWERS                 (4)       EW005114  EW005547  EW005548  EW005575
*STORMWATER                   (4)       EW004810  EW004818  EW005489  EW005614
 STORMWATER                   (1)       EW004793
*STREAMFLOW                   (1)       EW005712
*STREAMS                      (6)       EW004893  EW004946  EW004965  EW005506  EW005532  EW005712
 STRIP-MINED LANDS            (1)       EW005491
 STRUCTURAL DESIGN            (1)       EW005494
 STUDENT GUIDES               (3)       EW005866  EW005867  EW005868
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STUDY GUIDES	(1)	EW005526
*SUBPOTABLE WATER	(1)	EW005261
SUCTION	(1)	EW004978
*SULFIDES	(1)	EW005777
*SULFUR BACTERIA	(1)	EW005656
*SUPERVISION	(2)	EW005648 EW005649
*SUPERVISORY TRAINING	(1)	EW005667
*SUPPORT STRUCTURES	(1)	EW005494
SURFACE CHEMISTRY	(1)	EW005260
*SURFACE RUNOFF	(8)	EW004740 EW004813 EW004818 EW004820 EW004946 EW005114 EW005121 EW005614
SURFACE RUNOFF	(1)	EW004972
*SURFACE WATER	(3)	EW005644 EW005645 EW005646
SURFACE WATER	(7)	EW005637 EW005638 EW005639 EW005640 EW005641 EW005642 EW005643
SURVEYING	(1)	EW005548
*SURVEYS	(2)	EW005524 EW005865
*SUSPENDED MATTER	(1)	EW005683
SUSPENDED SOLIDS	(2)	EW005654 EW005780
*SWIMMING POOLS	(1)	EW005806
*SWIN-CHECK VALVES	(1)	EW005539
SWITCHES	(1)	EW005762
*SYMBOLS	(1)	EW005732
*SYMPOSIA	(5)	EW005659 EW005725 EW005726 EW005856 EW005857
*SYMPOSIA PROCEEDINGS	(2)	EW004772 EW004878
	( )	
SYNTHETIC ORGANIC CHEMICALS	(1)	EW005570
*SYNTHETIC ORGANIC POLYMERS	(1)	EW005635
SYSTEM DESIGN	(1)	EW005793
*SYSTEMS ANALYSIS	(1)	EW005847
TABLES (DATA)	(1)	EW005699
TALC	(1)	EW005510
*TAPE COATINGS	(1)	EW005540

TAPES	(1)	EW005500
*TAPPING	(1)	EW005688
TASTE	(1)	EW005617
*TASTE CONTROL	(1)	EW005592
*TAXES	(1)	EW004467
*TEACHING GUIDES	(11)	EW005741 EW005743 EW005747 EW005753 EW005764 EW005775 EW005810 EW005866 EW005867 EW005868 EW005869
TEACHING GUIDES	(2)	EW005522 EW005523
TEAM TRAINING	(1)	EW005263
TECHNICAL ASSISTANCE	(1)	EW005813
*TECHNICAL COOPERATION	(1)	EW005521
TECHNICAL PUBLICATIONS	(1)	EW005785
*TECHNICAL REPORTS	(1)	EW005858
TECHNOLOGICAL ADVANCEMENTS	(4)	EW005535 EW005787 EW005837 EW005857
*TECHNOLOGY	(5)	EW005514 EW005550 EW005593 EW005629 EW005792
TECHNOLOGY	(4)	EW005551 EW005616 EW005793 EW005851
*TEMPERATURE	(1)	EW005644
*TEMPERATURE PROBES	(1)	EW005611
*TERMINOLOGY	(1)	EW005698
*TERTIARY TREATMENT	(1)	EW005576
TERTIARY TREATMENT	(1)	EW004476
*TESTING	(1)	EW005833
TESTING	(7)	EW004587 EW004978 EW005530 EW005539 EW005540 EW005668 EW005827
TESTING METHODS	(1)	EW005570
*TEXAS	(1)	EW005621
TEXAS	(1)	EW005489
*TEXTBOOKS	(5)	EW005587 EW005588 EW005605 EW005657 EW005827
*TEXTILE INDUSTRY	(1)	EW004908
*THERMAL SLUDGE DISPOSAL	(1)	EW005846
*THREE-PHASE SYSTEMS	(1)	EW005761
TIMBER PRODUCTION	(1)	EW005081

*TOILETS (1) EW005658
*TOOLS (2) EW005737 EW005738
*TOTAL COLIFORM (1) EW005687
*TOTAL ORGANIC CARBON (1) EW005535
*TOXIC CHEMICALS (2) EW005130 EW005133
*TOXICITY (5) EW005128 EW005487 EW005505 EW005705 EW005789
TOXICITY (1) EW005704
*TOXIC MATERIALS (1) EW005555
TOXIC METALS (1) EW005815
*TOXICOLOGY (4) EW004804 EW004805 EW004944 EW005534
TOXICOLOGY (1) EW005725
TOXIC STANDARDS (1) EW005628
*TOXIC SUBSTANCES (10) EW004804 EW004805 EW004944 EW005510 EW005641 EW005725 EW005726 EW005789 EW005802 EW005866
TOXIC SUBSTANCES (7) EW005089 EW005130 EW005487 EW005614 EW005666 EW005695 EW005703
*TOXIC WASTES (4) EW005152 EW005553 EW005554 EW005555
TRACE ANALYSIS (1) EW005831
*TRACE CHEMICALS (1) EW005692
TRACE ELEMENTS (1) EW005646
TRACE METALS (1) EW005692
*TRAINING (6) EW004560 EW004803 EW005485 EW005610 EW005647 EW005873
TRAINING (6) EW004404 EW004974 EW005518 EW005521 EW005626 EW005648
*TRAINING MANUALS (15) EW004476 EW005522 EW005523 EW005526 EW005548 EW005549 EW005583 EW005741 EW005743 EW005747 EW005753 EW005764 EW005775 EW005528 EW005731
*TRAINING MATERIALS (1) EW005647
*TRAINING NEEDS (1) EW004532
*TRAINING PROGRAMS (50) EW005263 EW005485 EW005521 EW005732 EW005733 EW005734 EW005735 EW005736 EW005737 EW005738 EW005739 EW005740 EW005741 EW005742 EW005743 EW005744 EW005745 EW005746 EW005747 EW005748 EW005749 EW005752 EW005753 EW005755 EW005756 EW005757 EW005758 EW005760 EW005761 EW005762 EW005763 EW005765 EW005766 EW005767 EW005768 EW005769 EW005771 EW005772 EW005773 EW005774 EW005775 EW005873 EW005759 EW005764 EW005770 EW005529 EW005731 EW005750 EW005751 EW005754
TRAINING PROGRAMS (1) EW005670

*TRANSFORMERS (1) EW005756
*TRANSPORT (1) EW005704
TRANSPORTATION (1) EW005505
TRANSPORTATION SYSTEM (1) EW005578

TREATMENT ALTERNATIVES (1) EW005595
TREATMENT TANKS (1) EW005805
*TRICKLING FILTERS (1) EW005845
TRICKLING FILTERS (1) EW005862
*TRIHALOMETHANE (3) EW005538 EW005617 EW005618
TRIHALOMETHANE (1) EW005616
*TRIHALOMETHANES (1) EW005570
*TROUBLESHOOTING (3) EW005740 EW005772 EW005774
TROUBLESHOOTING (4) EW005749 EW005750 EW005751 EW005763
*TUBERCULATION (1) EW005669
*TURBIDITY (1) EW005682
TURBIDITY (2) EW005833 EW005837
TURBINES (1) EW005746

*ULTRAFILTRATION (1) EW005550
ULTRAVIOLET LIGHT (1) EW004881
ULTRAVIOLET RADIATION (1) EW004878
UNIONS (1) EW005649
UNITED STATES (1) EW005622
*UNITS OF MEASUREMENT (1) EW005685
*URANIUM (1) EW004890
URANIUM ORES (1) EW004890
URANIUM TAILINGS (1) EW005152

*URBAN AREAS (6) EW004813 EW004818 EW005114 EW005121 EW005489 EW005784
URBAN AREAS (3) EW004735 EW005186 EW005636

*URBAN ENVIRONMENT (2) EW004972 EW005614
URBAN LAND (1) EW004793

URBAN PESTS (1) EW005650

*URBAN RUNOFF (2) EW004810 EW005489

*U.S. ARMY (1) EW005261

*UTILITIES (12) EW004532 EW004962 EW005188 EW005189 EW005190 EW005191 EW005514
EW005518 EW005524 EW005554 EW005747 EW005783

UTILITIES (6) EW004960 EW005152 EW005512 EW005551 EW005553 EW005569

UTILITY SERVICES (1) EW005516

VACUUM SEWERS (1) EW005697

*VALUE ENGINEERING (1) EW005571

*VALVES (2) EW005539 EW005793

VALVES (4) EW005770 EW005771 EW005772 EW005773

VIDEOCASETTES (1) EW005529

VIRGINIA (1) EW005485

*VISITORS (1) EW004794

*VISUAL AIDS (1) EW005808

VOLATILE COMPOUNDS (1) EW004742

VOLTAMMETRY (1) EW005694

WASHINGTON, DC (4) EW005575 EW005576 EW005577 EW005578

*WASTE CONVERSION (1) EW004953

*WASTE DISPOSAL (37) EW004371 EW004535 EW004806 EW004908 EW004948 EW004965 EW005104
EW005107 EW005128 EW005152 EW005491 EW005517 EW005551 EW005552 EW005553
EW005554 EW005555 EW005574 EW005578 EW005581 EW005589 EW005590 EW005591
EW005593 EW005603 EW005604 EW005630 EW005634 EW005651 EW005658 EW005661
EW005803 EW005813 EW005815 EW005857 EW005864 EW005878

WASTE DISPOSAL (10) EW003555 EW004962 EW005186 EW005461 EW005505 EW005514 EW005654
EW005816 EW005845 EW005858

*WASTE MANAGEMENT (3) EW005152 EW005590 EW005651

WASTE MANAGEMENT (1) EW005574

*WASTE OIL TREATMENT (1) EW005098

*WASTE PESTICIDES (1) EW005851

*WASTE PROCESSING (1) EW004535

WASTE PROCESSING (1) EW005551

*WASTE RECYCLING (1) EW005658

*WASTE REPROCESSING (1) EW004953
*WASTES (2) EW005553 EW005555
WASTE STABILIZATION LAGOONS (1) EW005805
*WASTE TREATMENT (2) EW004908 EW005658
WASTE TREATMENT (2) EW005574 EW005604
*WASTE UTILIZATION (1) EW004535
*WASTEWATER (6) EW004741 EW004887 EW005188 EW005190 EW005697 EW005811
WASTEWATER (3) EW005657 EW005676 EW005681

*WASTEWATER ANALYSIS (1) EW004587
*WASTEWATER COLLECTION (15) EW004735 EW004774 EW004979 EW005186 EW005191 EW005536 EW005537
EW005547 EW005548 EW005575 EW005614 EW005627 EW005631 EW005729 EW005777
*WASTEWATER DISPOSAL (3) EW005585 EW005595 EW005811
WASTEWATER DISPOSAL (1) EW005827
*WASTEWATER MANAGEMENT (1) EW005492
*WASTEWATER POLLUTION CONTROL (1) EW004948

*WASTEWATER SLUDGE (1) EW005491
*WASTEWATER TREATMENT (104) EW003555 EW003783 EW004476 EW004532 EW004560 EW004587 EW004602
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EW005864
WASTEWATER TREATMENT (5) EW005487 EW005488 EW005492 EW005529 EW005782
WASTEWATER TREATMENT FACILITIES (1) EW005529
WASTEWATER TREATMENT PERSONNEL (1) EW005529
WASTEWATER TREATMENT SYSTEMS (1) EW005697

*WATER ANALYSIS (18) EW004888 EW004890 EW005670 EW005672 EW005673 EW005674 EW005675
EW005676 EW005677 EW005678 EW005679 EW005680 EW005681 EW005682 EW005683
EW005684 EW005686 EW005687

*WATER CHEMISTRY	(1)	EW005541
*WATER COLLECTION	(1)	EW005830
*WATER CONSERVATION	(11)	EW004602 EW005103 EW005653 EW005706 EW005707 EW005708 EW005710 EW005711 EW005712 EW005729 EW005790
WATER CONSERVATION	(3)	EW005090 EW005658 EW005709
*WATER DISTRIBUTION	(16)	EW004733 EW004734 EW004735 EW004811 EW004960 EW004961 EW005525 EW005540 EW005542 EW005548 EW005611 EW005612 EW005664 EW005669 EW005693 EW005804
WATER DISTRIBUTION	(1)	EW005715
*WATER DISTRIBUTION SYSTEMS	(4)	EW004563 EW005547 EW005549 EW005583
*WATER DISTRICTS	(1)	EW004976
*WATER EROSION	(1)	EW004793
*WATER EROSION CONTROL	(1)	EW004793
*WATER MAINS	(3)	EW005548 EW005549 EW005693
*WATER MANAGEMENT	(8)	EW005706 EW005707 EW005708 EW005709 EW005710 EW005711 EW005712 EW005865
*WATER MEASUREMENT	(1)	EW005609
*WATER METERS	(1)	EW005609
*WATER PIPES	(1)	EW005669
*WATER POLICY	(6)	EW005706 EW005707 EW005708 EW005710 EW005711 EW005712
WATER POLICY	(1)	EW005621
*WATER POLLUTION	(16)	EW004741 EW004775 EW004813 EW004818 EW004965 EW004972 EW005085 EW005128 EW005130 EW005147 EW005581 EW005604 EW005614 EW005656 EW005679 EW005858
WATER POLLUTION	(11)	EW004806 EW004962 EW005133 EW005506 EW005589 EW005658 EW005666 EW005730 EW005743 EW005782 EW005811
*WATER POLLUTION CONTROL	(38)	EW004731 EW004740 EW004774 EW004776 EW004889 EW004893 EW004972 EW005086 EW005098 EW005104 EW005114 EW005128 EW005130 EW005187 EW005190 EW005506 EW005552 EW005577 EW005631 EW005633 EW005637 EW005638 EW005639 EW005640 EW005641 EW005642 EW005643 EW005644 EW005645 EW005646 EW005662 EW005664 EW005692 EW005742 EW005802 EW005816 EW005818 EW005855
WATER POLLUTION CONTROL	(19)	EW003783 EW004818 EW004820 EW005153 EW005485 EW005486 EW005487 EW005489 EW005509 EW005514 EW005535 EW005554 EW005569 EW005585 EW005595 EW005628 EW005629 EW005703 EW005829
*WATER PROBLEMS	(1)	EW005121
*WATER PUMPS	(1)	EW005769
*WATER PURFICATION	(1)	EW005550

*WATER QUALITY	(46)	EW004629 EW004642 EW004740 EW004794 EW004804 EW004805 EW004889 EW004890 EW004911 EW004946 EW004962 EW004965 EW004972 EW004975 EW005090 EW005114 EW005121 EW005490 EW005506 EW005508 EW005569 EW005577 EW005584 EW005587 EW005614 EW005616 EW005617 EW005618 EW005620 EW005628 EW005637 EW005638 EW005639 EW005640 EW005641 EW005642 EW005643 EW005644 EW005645 EW005646 EW005659 EW005666 EW005783 EW005816 EW005833 EW005865
WATER QUALITY	(30)	EW004563 EW004602 EW004733 EW004810 EW004813 EW004887 EW004888 EW005103 EW005261 EW005489 EW005515 EW005520 EW005525 EW005549 EW005568 EW005570 EW005573 EW005583 EW005593 EW005604 EW005622 EW005653 EW005670 EW005729 EW005782 EW005784 EW005802 EW005810 EW005857 EW005862
*WATER QUALITY CRITERIA	(1)	EW004629
WATER QUALITY PROBLEMS	(1)	EW005865
*WATER QUALITY STANDARDS	(11)	EW005584 EW005637 EW005638 EW005639 EW005640 EW005641 EW005642 EW005643 EW005644 EW005645 EW005646
*WATER RATES	(2)	EW005516 EW005615
*WATER RATE SCHEDULES	(1)	EW005516
*WATER RESEARCH CENTER	(1)	EW004642
*WATER RESOURCE COUNCIL	(2)	EW005707 EW005708
*WATER RESOURCE PROJECTS	(1)	EW005652
*WATER RESOURCES	(39)	EW004560 EW004602 EW004741 EW004946 EW004976 EW005081 EW005103 EW005121 EW005153 EW005514 EW005515 EW005520 EW005521 EW005573 EW005577 EW005620 EW005621 EW005622 EW005652 EW005653 EW005659 EW005662 EW005699 EW005704 EW005705 EW005706 EW005707 EW005708 EW005709 EW005710 EW005711 EW005712 EW005729 EW005785 EW005790 EW005814 EW005816 EW005830 EW005865
WATER RESOURCES	(7)	EW004820 EW005522 EW005523 EW005552 EW005586 EW005604 EW005861
*WATER RESOURCES COUNCIL	(4)	EW005706 EW005710 EW005711 EW005712
WATER RESOURCES COUNCIL	(1)	EW005652
*WATER REUSE	(4)	EW004602 EW005261 EW005573 EW005659
*WATER SAMPLES	(1)	EW005662
*WATERSHEDS	(2)	EW004794 EW004965
WATER STORAGE	(2)	EW005494 EW005583
*WATER STORAGE FACILITIES	(1)	EW005547
*WATER SUPPLY	(28)	EW004563 EW004733 EW004734 EW004881 EW004838 EW004960 EW004961 EW005263 EW005490 EW005516 EW005518 EW005520 EW005522 EW005523 EW005524 EW005540 EW005542 EW005577 EW005606 EW005615 EW005616 EW005620 EW005621 EW005671 EW005729 EW005783 EW005784 EW005833
WATER SUPPLY	(9)	EW005666 EW005668 EW005706 EW005707 EW005708 EW005709 EW005710 EW005711 EW005712
WATER SUPPLY PRODUCTS	(1)	EW005785
WATER SUPPLY SERVICES	(1)	EW005785
WATER SUPPLY SYSTEMS	(1)	EW005547

*WATER TREATMENT (47) EW004532 EW004560 EW004563 EW004734 EW004881 EW004888 EW004960
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EW005617 EW005618 EW005620 EW005621 EW005632 EW005666 EW005668 EW005671
EW005715 EW005782 EW005784 EW005804 EW005810 EW005829 EW005847 EW005872

WATER TREATMENT (3) EW003783 EW005527 EW005659

WATER TREATMENT PLANTS (1) EW005538

WATER USE (6) EW005706 EW005707 EW005708 EW005710 EW005711 EW005712

*WATER UTILITIES (7) EW004467 EW004563 EW004734 EW004960 EW004961 EW005615 EW005715

WATER UTILITIES (1) EW005583

WATER UTILITY COUNCIL (1) EW005569

*WATER WELLS (1) EW005009

*WATER WORKS (2) EW004734 EW005804

*WATERWORKS CHEMISTRY (1) EW005541

*WATERWORKS EQUIPMENT (1) EW005539

*WEATHER (1) EW005814

*WEATHER MODIFICATION (1) EW005814

*WEED CONTROL (1) EW005586

WELLS (3) EW004975 EW005542 EW005699

*WILDLIFE MANAGEMENT (1) EW005081

*WIND EROSION (1) EW004793

*WIND EROSION CONTROL (1) EW004793

WIRING (1) EW005762

WOOD (1) EW005736

WORKBOOK (3) EW005732 EW005733 EW005740

*WORKBOOKS (2) EW004886 EW005526

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EW005869

*WORK ENVIRONMENT (1) EW005648

WORKER SELECTION (1) EW005648

*ZEOLITE (2) EW005862 EW005863

*ZINC (1) EW005639